MATRIX™

Strong. Smart. Beautiful.

S3XE-01 STEPPER SERVICE MANUAL

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1.1 SERIAL NUMBER LOCATION

SERIAL # PLACEMENT

SERIAL# PLACEMENT

A serial number plate is located below the bottom of the console mast beneath a rubber boot. There is also a serial number tag on the middle of the main frame pointed towards the floor.

2.1 BEFORE GETTING STARTED

The Matrix S3xe-01 Stepper is intended for commercial use. To ensure your safety and protect the equipment, read all instructions before operating the stepper.

CHOOSING A SITE

The site should be well lit and well ventilated. Locate the Matrix S3xe-01 Stepper on a structurally solid and flat surface. The Stepper should have a clearance of 24" on the back side from the wall or other equipment. This zone is to allow easy access to the Stepper and gives the user an easy exit path from the machine. If the site has a heavy plush carpet, to protect the carpeting and machinery, you should place a rigid plastic base under the unit.

Please do not place the Matrix S3xe-01 Stepper in an area of high humidity, such as the vicinity of a steam room, indoor pool, or sauna. Exposure to intensive water vapor or chlorine could adversely affect the electronics, as well as other parts of the machine.
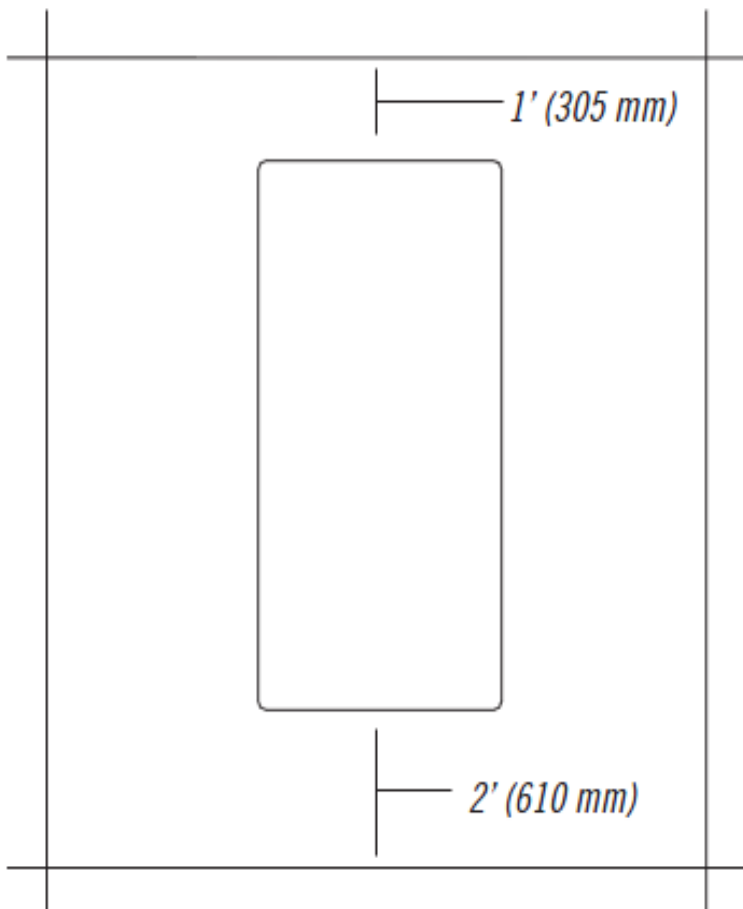
2.2 READ AND SAVE THESE INSTRUCTIONS

To ensure your safety and protect the equipment, read all instructions before operating the Matrix S3xe-01 Stepper.

To ensure proper use of the Stepper, make sure that all users read this manual. Remind the users that before undertaking any fitness program, they should obtain complete physical examinations from their physicians. If, at any time while exercising, the user experiences dizziness, pain, or shortness of breath, nausea or feels faint, he or she must stop immediately.

* This stepper is only to be used for its intended purpose described in this manual. Do not use attachments that have not been recommended by Matrix.

* Never drop or insert objects into any opening. Keep hands away from moving parts. If the item cannot be reached, contact a Matrix authorized dealer for assistance.

* Never operate the unit if it is damaged, not working properly, when it has been dropped, or has been dropped in water.

* Keep hands and feet clear at all times from moving parts to avoid injury.

* Do not use this product outdoors, near swimming pools or in areas of high humidity.

* Do not operate where aerosol (spray) products are being used or when oxygen is being administered.

* Do not use this product in bare feet. Do not wear shoes with heels, leather soles, cleats, or spikes while exercising.

* Do not remove the side covers. Service should only be done by an authorized service technician.

* Close supervision is necessary when used near children, invalids, or disabled people.

* When the stepper is in use, young children and pets should be kept at least 3 meters / 10 feet away.

* Assemble and operate the stepper on a solid, level surface.

* Never face backward while using the stepper.

* Use the stationary handlebars when mounting or dismounting the stepper.

* Do not wear clothing that might catch on any moving parts of this stepper.

CAUTION! *If you experience chest pains, nausea, dizziness, or shortness of breath, stop exercising immediately and consult your physician before continuing.*

CAUTION! *Any changes or modifications to this equipment could void the product warranty.*

2.3 ELECTRICAL REQUIREMENTS

ELECTRICAL REQUIREMENTS

The Matrix S3xe-01 Stepper must be AC powered. This will power the console at all times and requires no minimum RPM for operation. These units can be daisy chained together, up to 3 units per dedicated 15 amp circuit, using a Matrix daisy chain cord adapter (sold separately).

For your safety and the performance of your Matrix product, the ground on your circuits must be non-looped. Please refer to NEC article 210-21 and 210-23. Any alterations to the standard Matrix power cords will void all warranties. If plugged in, your stepper is provided with a power cord with a plug listed below and requires the listed outlet.
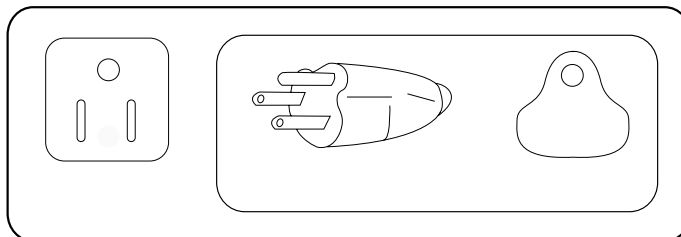

The S3xe-01 Stepper saves its battery charge by moving into a shutdown mode whenever STEP FASTER appears on the display. If the user does not maintain a step rate above 35 steps per minute, then a 30 second shutdown process begins. When the battery voltage is low, LOW BATTERY appears on the display if the unit is moving into the shutdown mode. The following situation is the time to recharge the battery:

* If no one has used the unit for an extended period of time, the battery may need recharging.

* The unit continues to function with a low battery, however, user and program information is lost once the user stops.

If the battery must be recharged, use the optional power adapter charging unit. The charger should be connected to the Stepper for a minimum of eight hours to ensure a thorough charge. After a completion of charge, the battery light turns from red into green (see illustration). If LOW BATTERY still appears on the display with a fully charged battery, the battery could be extinct. Please check with an authorized service technician for replacing the battery.

CAUTION

The battery stored inside the unit contains materials hazardous to the environment. Proper disposal of the battery is required by law.
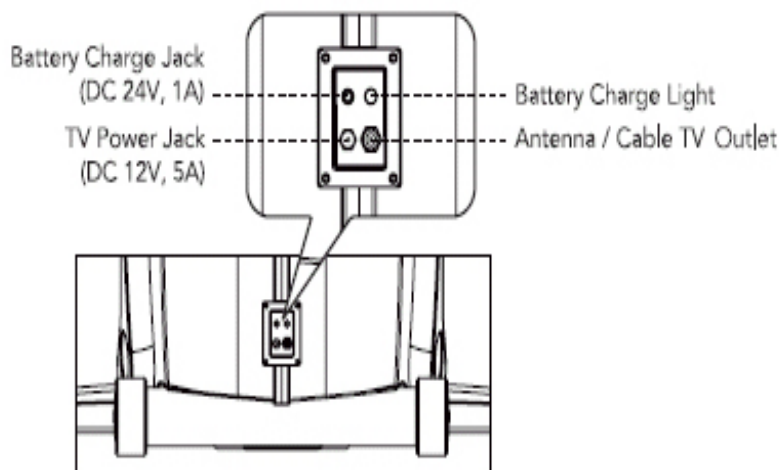
GROUNDING INSTRUCTIONS:

The Matrix Stepper must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. The Stepper is equipped with a cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. If the user does not follow these grounding instructions, the user could void the Matrix limited warranty.

DANGER: Improper connection of the equipment grounding conductor can result in the risk of electric shock. Check with a qualified electrician if the user is in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product if it will not fit the outlet, have a proper outlet installed by an electrician.

CONSOLE POWER

The Matrix Stepper console has a battery that makes it self powered. This means that even if the unit is not plugged in, the console may still have power for up to 12 hours. If the console power needs to be reset or turned off, press and hold the CHANNEL UP and CHANNEL DOWN keys for 3-5 seconds until the console turns off. The console power will also need to be reset if settings are changed in Manager, Engineering, or Service Modes.

CHAPTER 3: PREVENTATIVE MAINTENANCE

3.1 RECOMMENDED CLEANING TIPS

Preventative maintenance and daily cleaning will prolong the life and look of your Matrix S3xe-01 Stepper.

Please read and follow these tips.

* Position the equipment away from direct sunlight. The intense UV light can cause discoloration on plastics.

* Locate your equipment in an area with cool temperatures and low humidity.

* Clean with a soft 100% cotton cloth.

* Clean with soap and water or other non-ammonia based all pur-pose cleaners.

* Wipe the pedals, console, heart rate grips, and the handlebar clean after each use.

* Do not pour liquids directly onto your equipment. This can cause damage to the equipment and in some cases electrocution.

** Adjust leveling feet when equipment wobbles or rocks.

* Maintain a clean area around the equipment, free from dust and dirt.

3.2 CHECK FOR DAMAGED PARTS

DO NOT use any equipment that is damaged or has worn or broken parts. Use only replacement parts supplied by Matrix Fitness Systems.

MAINTAIN LABELS AND NAMEPLATES. Do not remove labels for any reason. They contain important information. If unreadable or missing, contact Matrix Fitness Systems for a replacement at 866-693-4863 or www.matrixfitness.com.

MAINTAIN ALL EQUIPMENT. Preventative maintenance is the key to smoothly operating equipment. Equipment needs to be inspected at regular intervals. Defective components must be kept out of use until they are repaired. Ensure that any person(s) making adjustments or performing maintenance or repair of any kind is qualified to do so. Matrix Fitness Systems will provide service and maintenance training at our corporate facility upon request or in the field if proper arrangements are made.

3.3 CARE AND MAINTENANCE INSTRUCTIONS

In order to maximize life span, and minimize down time, all Matrix equipment requires regular cleaning, and maintenance items performed on a scheduled basis. This section contains detailed instructions on how to perform these items and the frequency of which they should be done. Some basic tools and supplies will be necessary to perform these tasks which include (but may not be limited to):

* Metric Allen wrenches
* #2 Phillips head screwdriver
* Adjustable wrench
* Torque wrench (capability to read foot lbs and inch lbs)
* Lint free cleaning cloths
* Teflon based spray lubricant such as "Super Lube" or other Matrix approved products.
* Mild water soluble detergent such as "Simple Green" or other Matrix approved products
* Vacuum cleaner with an extendable hose and crevasse tool attachment.

You may periodically see addendums to this document, as the Matrix Technical Support Team identifies items that require specific attention, the latest version will always be available on the Matrix web site at www.matrixfitness.com.

DAILY MAINTENANCE ITEMS

1) Look and listen for loose fasteners, unusual noises, and any other indications that the equipment may be in need of service.

2) Clean the stepper before and after each use, including:
   a. Use a damp, soft cloth with water or mild liquid detergent to clean all exposed surfaces. DO NOT use ammonia, chlorine, or any acid based cleaners. Never spray cleaner directly onto the equipment. Always spray cleaner onto a cloth.
   b. Keep the console display free of fingerprints and salt build up caused by sweat.

WEEKLY MAINTENANCE ITEMS

1) Frequently vacuum the floor beneath the unit to prevent the accumulation of dust and dirt which can affect the smooth operation of the unit.

2) Check the pedals and belts for damage.

3) Check the unit for a low battery charge, recharge if needed.

MONTHLY MAINTENANCE ITEMS

1) Inspect the console, pedals, handlebars, and shrouds for damage.

2) Adjust the leveling feet if equipment rocks or wobbles.

QUARTERLY MAINTENANCE ITEMS

1) Remove the front shrouds and remove the 3 belt pulleys from each side. Clean and lubricate the pulleys (Teflon based lubricant). Then re-assemble the unit.

2) Remove the front shrouds and check the belts for damage, alignment, and proper tension.

4.1 CONSOLE DESCRIPTION

MULTI-PURPOSE KEYS: Keys have different functions depending on each screen.

GO: One touch Start.

ENTER: To confirm each program setting.

UP / DOWN LEVEL: Easy information and level selection.

UP / DOWN TIME: Easy information and time adjustment.

STOP: Ends workout and shows workout summary data.

NUMBER KEYPAD: Workout data input for workout setup. Level adjustment during workout.

COOL DOWN: Puts the Stepper into Cool Down Mode.

S3XE ENTERTAINMENT ZONE

TV: Will take the user directly to the TV screen.

VOLUME UP / DOWN: Adjusts the volume output through the headphone jack of either integrated console TV or iPod output.

NUMBER KEYPAD: Allows for easy TV channel selections.

CHANNEL UP / DOWN: Allows for channel selection.

DISPLAY MODE: Allows user to cycle through console display options, iPod, TV, or profile display.

LAST CHANNEL: Allows the user to cycle between the current channel and the previous channel they were viewing.

HOME: Changes the channel to the channel defined as Home.

CC / MUTE: Press to cycle through the different closed caption and mute configurations.

4.2 WORKOUT SETUP STEPS - MANUAL

GO - Press to immediately begin a workout. Workout, resistance level, and time will automatically go to default settings. Pressing GO will not prompt user for age, weight, or level settings.

1) Start pedaling and press the GO key to begin your workout. 2) The display will read 3, 2, 1, Begin and then the program will start.

MANUAL - Manual allows the user to input more information while defining their own workout. Calorie expenditure will be more accurate when inputting information in Manual than by pressing GO.

1) Start pedaling and press the key next to MANUAL on the display.
2) Select the key next to Level and follow the prompts to set.
3) Select the key next to Time and follow the prompts to set. .
4) Select the key next to Weight and follow the prompts to set.
5) Select the key next to GO and the display will read 3, 2, 1, and then the program will begin.

4.3 WORKOUT SETUP STEPS - FAT BURN

FAT BURN - Fat burn is a level based program that is designed to help users burn fat through various resistance level changes.

1) Start pedaling and press the FAT BURN key.
2) Select the key next to Level and follow the prompts to set.
3) Select the key next to Time and follow the prompts to set. .
4) Select the key next to Weight and follow the prompts to set.
5) Select the key next to GO and the display will read 3, 2, 1, and then the program will begin.

4.4 WORKOUT SETUP STEPS - TRAINING WORKOUTS

ROLLING HILLS - The Rolling Hills program is a level based program that automatically adjusts the resistance level to simulate real terrain.

1) Start pedaling and press the key next to TRAINING WORKOUTS on the display, and then press the key next to ROLLING HILLS.
2) Select the key next to Level and follow the prompts to set.
3) Select the key next to Time and follow the prompts to set. .
4) Select the key next to Weight and follow the prompts to set.
5) Select the key next to GO and the display will read 3, 2, 1, and then the program will begin.

INTERVALS - The Intervals program is a level based program that automatically adjusts the resistance of the machine from low to high intensity settings at regular intervals.

1) Start pedaling and press the key next to TRAINING WORKOUTS on the display, and then press the key next to INTERVAL TRAINING.
2) Select the key next to Level and follow the prompts to set.
3) Select the key next to Time and follow the prompts to set. .
4) Select the key next to Weight and follow the prompts to set.
5) Select the key next to GO and the display will read 3, 2, 1, and then the program will begin.

4.5 WORKOUT SETUP STEPS - COOPER FITNESS TEST

FITNESS TEST -The Cooper Fitness Test measures cardiovascular fitness and proves an estimated sub-maximal VO2 result. It is based on power output according to ACSM standards and was developed by the Cooper Institute© (www.cooperinstitute.org). User RPMs must remain between 60-80 RPM during the test. The test will end when the user can no longer maintain this speed. Use of a heart rate strap is optional but provides more data.

The test starts at a low intensity level and gradually increases in intensity (difficulty) every 2 minutes. As it increases, the user must maintain 60-80 RPM to advance to the next level. The test could take upwards of 30+ minutes for very fit individuals. Once the test ends a recovery period (cool down) will begin and the user's results are calculated and displayed. Results are based on the number of stages completed. Incline will not be adjustable during the test.

1) Start pedaling and press the key next to FITNESS TEST on the display.
2) Select the key next to Age and follow the prompts to set.
3) Select the key next to Gender and follow the prompts to set. .
4) Select the key next to Weight and follow the prompts to set.
5) Select the key next to GO and the display will read 3, 2, 1, and then the program will begin.
6) Once the workout is complete, the display will read the results of the Fitness Test.

STAGE COMPLETE:
1	Well Below Average
2	Well Below Average
3	Below Average
4	Below Average
5	Average
6	Average
7	Above Average
8	Above Average
9+	Well Above Average

4.6 WORKOUT SETUP STEPS - TARGET HEART RATE

TARGET HEART RATE - The Stepper comes with standard digital contact heart rate sensors and are POLAR telemetry compatible. The heart rate control workout mode allows the user to program their desired heart rate zone, and the Stepper will automatically adjust the level based upon the user's heart rate. The heart rate zone is calculated using the following equation: (220-Age)8%=target heart rate zone. The user must wear a POLAR telemetric strap or continually hold onto the contact heart rate grips for this workout.

Locate the metal sensors on the handlebars of the Stepper. Notice that there are two separate pieces of metal on each grip. You must be making contact with both pieces of each grip to get an accurate heart rate reading. You can grab these sensors in any program to view your current heart rate.

1) Start pedaling and press the key next to TARGET HEART RATE.
2) Select the key next to Age and follow the prompts to set.
2) Select the key next to Percent of HR and follow the prompts to set.
3) Select the key next to Time and follow the prompts to set. .
4) Select the key next to Weight and follow the prompts to set.
5) Select the key next to GO and the display will read 3, 2, 1, and then the program will begin.
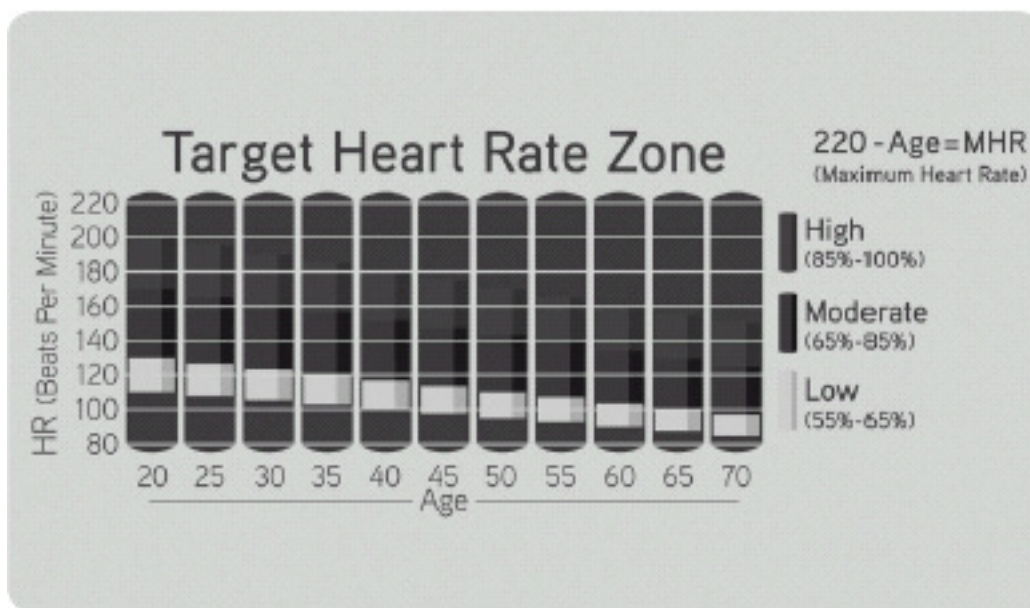
4.7 WORKOUT SETUP STEPS - CONSTANT WATTS

CONSTANT WATTS - Constant Watts is a unique program that allows you to vary your cadence or RPM and the Stepper's resistance level will adjust accordingly to your selected goal. The quicker you pedal, the less resistance for the goal selected.

1) Start pedaling and press the CONSTANT WATTS key.
2) Select the key next to Watts and follow the prompts to set.
3) Select the key next to Time and follow the prompts to set. .
4) Select the key next to Weight and follow the prompts to set.
5) Select the key next to GO and the display will read 3, 2, 1, and then the program will begin.

5.1 MANAGER MODE OVERVIEW

The Manager's Custom Mode allows the club owner to customize the stepper for the club.

1) To enter Manager Mode, press ENTER, 1, 0, 0, 1, ENTER on the upper display. Manager Mode will appear on the display (Figure A).

2) Select the key next to the setting that needs to be changed, and follow the prompts to change.

3) Press the ENTER key once the desired setting is correct to save.

4) Press HOME or press and hold the STOP key for 3-5 seconds to return to normal operation. *NOTE:* If a setting has been changed, the unit and console power should be reset. Cycle the power switch, and press and hold the CHANNEL UP and CHANNEL DOWN keys for 3-5 seconds to reset the console power.

FIGURE A

5.2 MANAGER MODE - ABOUT TAB
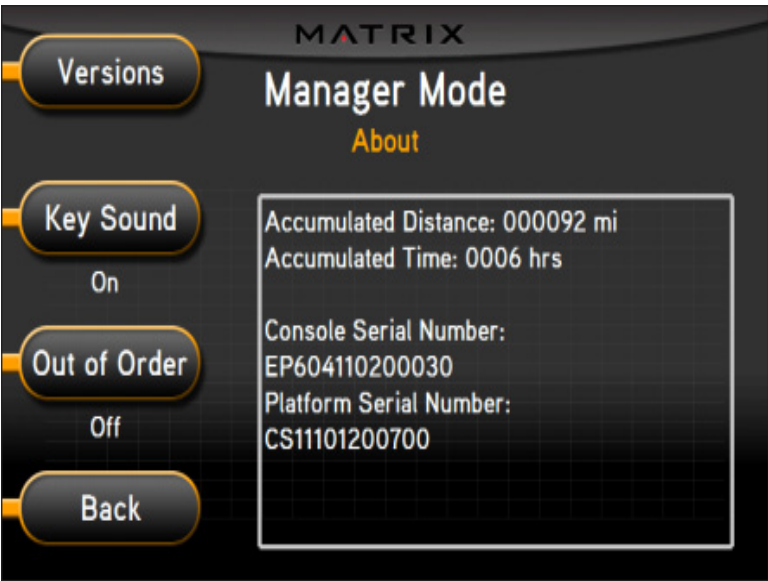
MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
About	Versions	Software version.	Cannot be modified.
	Key Sound: Default: On	Controls whether there is a key sound when a key is pressed and whether it is a beep or through the speakers.	On / Off
	Out of Order Default: Off	This option allows the club to put the console into an "out of order" status.	On / Off

5.3 MANAGER MODE - TIME TAB

MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Time	Maximum Time Default: 60 Minutes	This option allows the club to set the maximum workout duration limits during peak and non peak hours.	Maximum: 99 Minutes Minimum: 5 Minutes
	Pause Time Default: 5 Min	This option controls the default pause time.	Max: 10 Min Min: 1 Min

5.4 MANAGER MODE - DEFAULTS TAB

MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTION	MODIFIED
Defaults	Level Default: 1	This option controls the default program level.	Maximum: 1 Minimum: 20
	Age Default: 30	This option controls the default user's age used in the target HR calculations.	Maximum: 100 Minimum: 10
	Weight Default: 150 lbs / 68 kg	This option controls the default weight used in the calorie calculations. Displayed in pounds or kilograms.	Maximum: 400 lbs / 180 kg Minimum: 80 lbs / 36 kg
	Resistance	This option controls the starting resistance.	Maximum 80; Minimum 40
	Gender Default: Male	Setting the user as Male or Female.	Male or Female
	Time	This option controls the default program time.	Max: Max Time Min: 5 Min.

5.5 MANAGER MODE - LANGUAGE TAB

MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Language	Select default language.	This option allows the user to select a flag for a specific language.	N/A

LANGUAGE	FLAG	UNIT
English		Mile
		Mile
		KM
German		KM
		KM

LANGUAGE	FLAG	UNIT
Spanish		KM
		KM
Dutch		KM
Italian		KM
Japanese		KM

LANGUAGE	FLAG	UNIT
Chinese		KM
		KM
Portuguese		KM
		KM
French		KM

5.6 MANAGER MODE - TV TAB

MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
TV	Channel: Default: 3	This option controls the default TV channel on start up.	Channels 1-999
	Volume: Default: 5	This option controls the default TV volume on start up.	Maximum: 17 Minimum: 1
	Setup	This option allows the TV to be programmed. Press - on the number keypad.	N/A
	External TV: Default: Off	This option controls the external TV power. **NOTE:** The TV will only work in AC Plug in Mode.	On / Off
	Remote TV Default: Off	This option allows the controller to work with MYE TV.	On/ Off

5.7 MANAGER MODE - OTHER TAB

MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Other	Virtual Active	This option controls the Virtual Active Function. **NOTE:** The Virtual Active function will only work in AC Plug in Mode.	Default: Yes or No

6.1 ENGINEERING MODE OVERVIEW

The Engineering Mode allows the club owner to keep track of the technical settings and error history for the stepper.

1) To enter Engineering Mode, press ENTER, 2, 0, 0, 1, ENTER on the upper display. Engineering Mode will appear on the display (Figure A).

2) Select the key next to the setting that needs to be changed, and follow the prompts to change.

3) Press the ENTER key once the desired setting is correct to save.

4) Press HOME or press and hold the STOP key for 3-5 seconds to return to normal operation. *NOTE:* If a setting has been changed, the unit and console power should be reset. Cycle the power switch, and press and hold the CHANNEL UP and CHANNEL DOWN keys for 3-5 seconds to reset the console power.
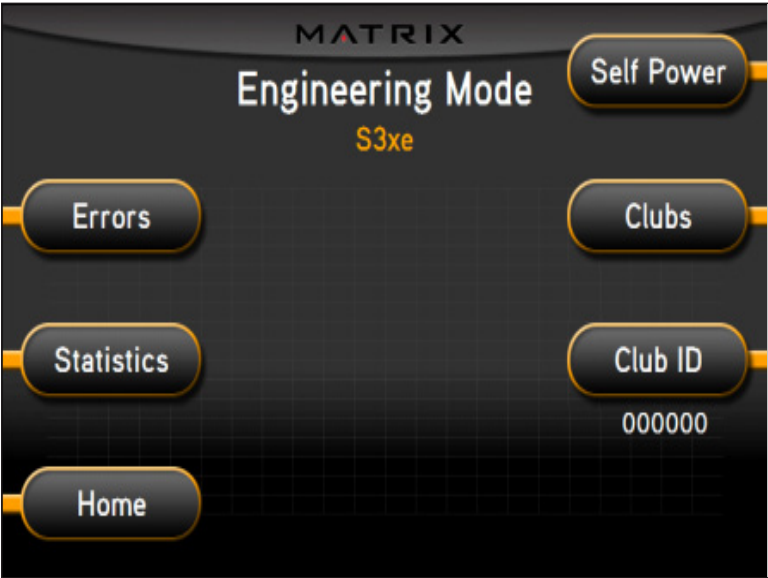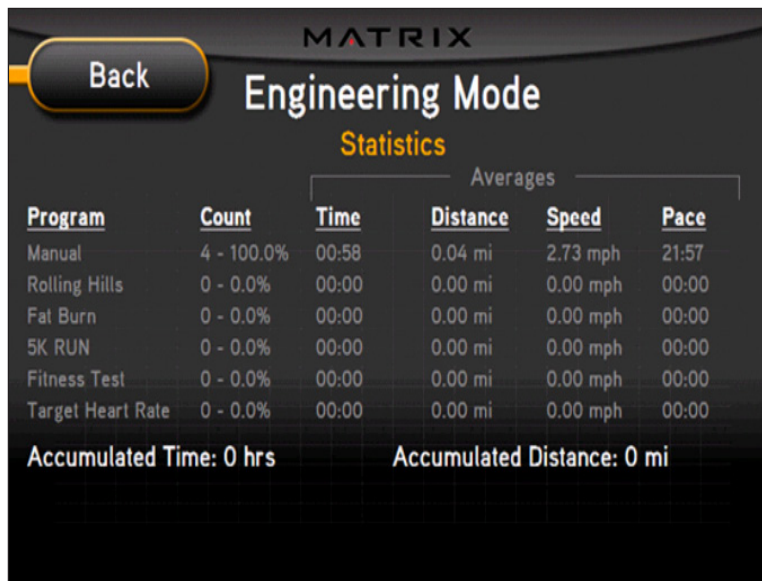

FIGURE A

6.2 ENGINEERING MODE - ERRORS TAB
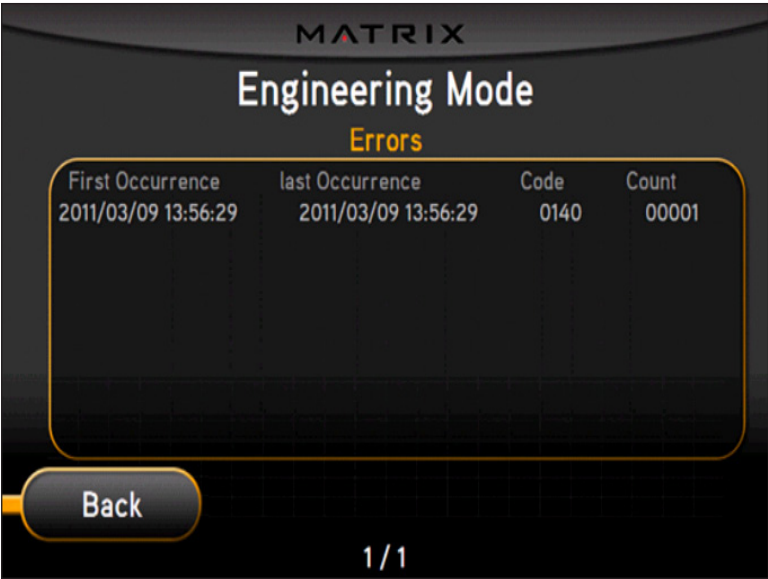
ENGINEERING MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Errors		This option displays the error code history.	N/A

6.3 ENGINEERING MODE - STATISTICS TAB

ENGINEERING MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Statistics		This option displays the workout information for the unit.	N/A

6.4 ENGINEERING MODE - SELF POWER TAB

ENGINEERING MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Self Power	Threshold Default: 25 RPM	This option controls the minimum RPM limits for operation.	25 - 60 RPM
	Disconnect	This option controls the minimum RPM limit to operate other functions when no power is present.	20 - 60 RPM
	Keep Time	This option controls how long the console keeps information after the minimum RPM threshold is not met.	Home: 60 Sec Run: 30 Sec Summary: 30 Sec

6.5 ENGINEERING MODE - CLUBS TAB
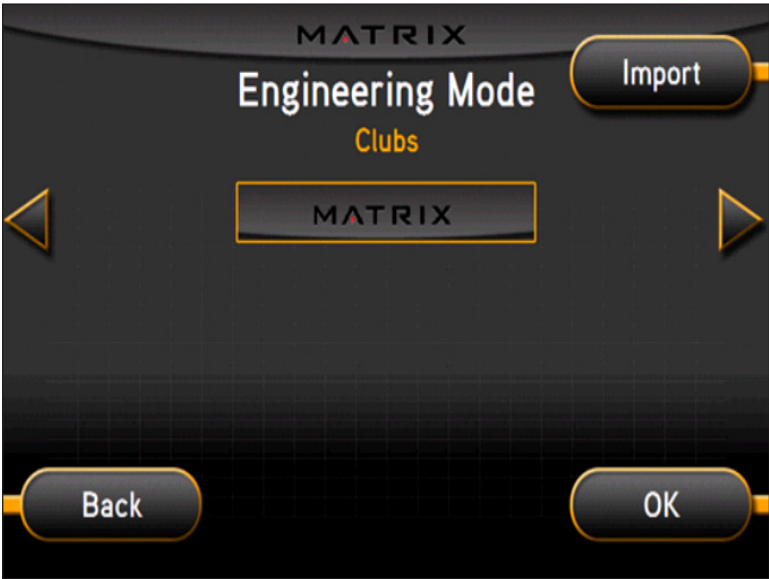
ENGINEERING MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
	Clubs Default: MATRIX	This option allows the club to select a screen header from a list.	N/A

6.6 ENGINEERING MODE - CLUB ID TAB
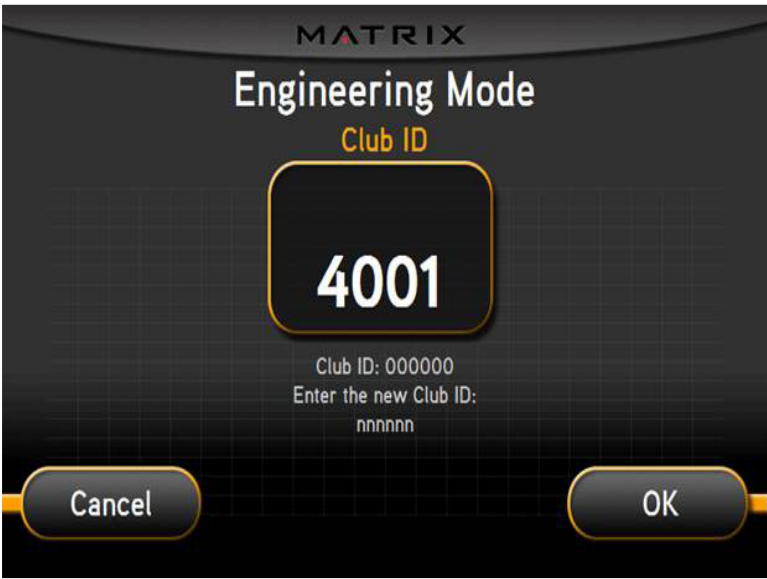
ENGINEERING MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
	Club ID	This option records the Club ID of the fitness facility.	N/A

7.1 SERVICE MODE OVERVIEW

The Service Mode allows an authorized service provider to test and store information on the stepper.

1) To enter Service Mode, press ENTER, 3, 0, 0, 1, ENTER on the upper display. Service Mode will appear on the display (Figure A).

2) Select the key next to the setting that needs to be changed, and follow the prompts to change.

3) Press the ENTER key once the desired setting is correct to save.

4) Press HOME or press and hold the STOP key for 3-5 seconds to return to normal operation.   *NOTE:* If a setting has been changed, the unit and console power should be reset. Cycle the power switch, and press and hold the CHANNEL UP and CHANNEL DOWN keys for 3-5 seconds to reset the console power.

FIGURE A

7.2 SERVICE MODE - SETUP TAB
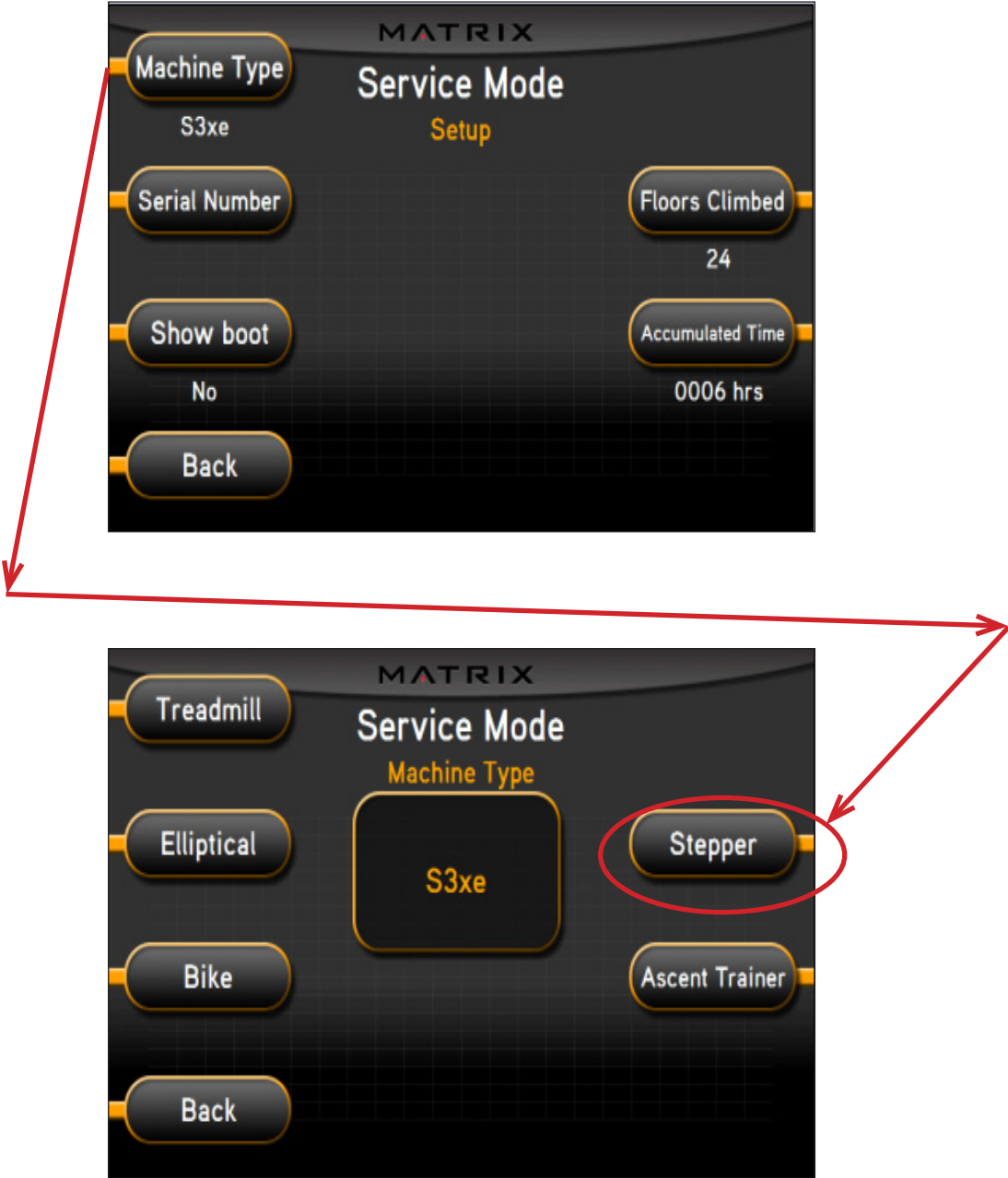
SERVICE MODE	FUNCTION & DEFAULTS	DESCRIPTIONS
Setup	Machine Type Default: Stepper	This option selects the current model.
	Serial Number	This option displays the serial number of the console and frame.
	Floors Climbed	This option displays the total floors climbed since production.
	Accumulated Time	This option displays the accumulated workout time since production.
	Show Boot	Factory Setting Only.

7.2 SERVICE MODE - SETUP TAB - CONTINUED

1) Enter into Service Mode (ENTER, 3, 0, 0, 1, ENTER).

2) Check if the Machine Type is set for S3xe.

3) As long as the Machine Type is correct, the console should automatically be set for EP604 and the platform should automatically be set for CS11.

4) Input the serial number for the console first.

5) The serial number configuration is as follows, then press OK:
   - V:YY:MM;nnnnn
   - V is the version. This will be a letter between B-Z (if the console is version A, just leave this blank).
   - Y is the year (e.g. 10, 11, 12).
   - MM is the month (e.g. 08, 09, 10).
   - nnnnn is the actual serial number.
Repeat this procedure to enter the platform serial number.

6) The example shows the console automatically set for EP604 a version of A, a year of 2011, a month of 02 (February), and a serial number of 00030.

The example shows the platform automatically set for CS11, a version of A, a year of 2010, a month of 12 (December), and a serial number of 00700.

7.3 SERVICE MODE - TEST TAB

SERVICE MODE	FUNCTION & DEFAULTS	DESCRIPTIONS
Test	Keypad	This option is for a keypad test.

7.4 SERVICE MODE - DATE & TIME TAB
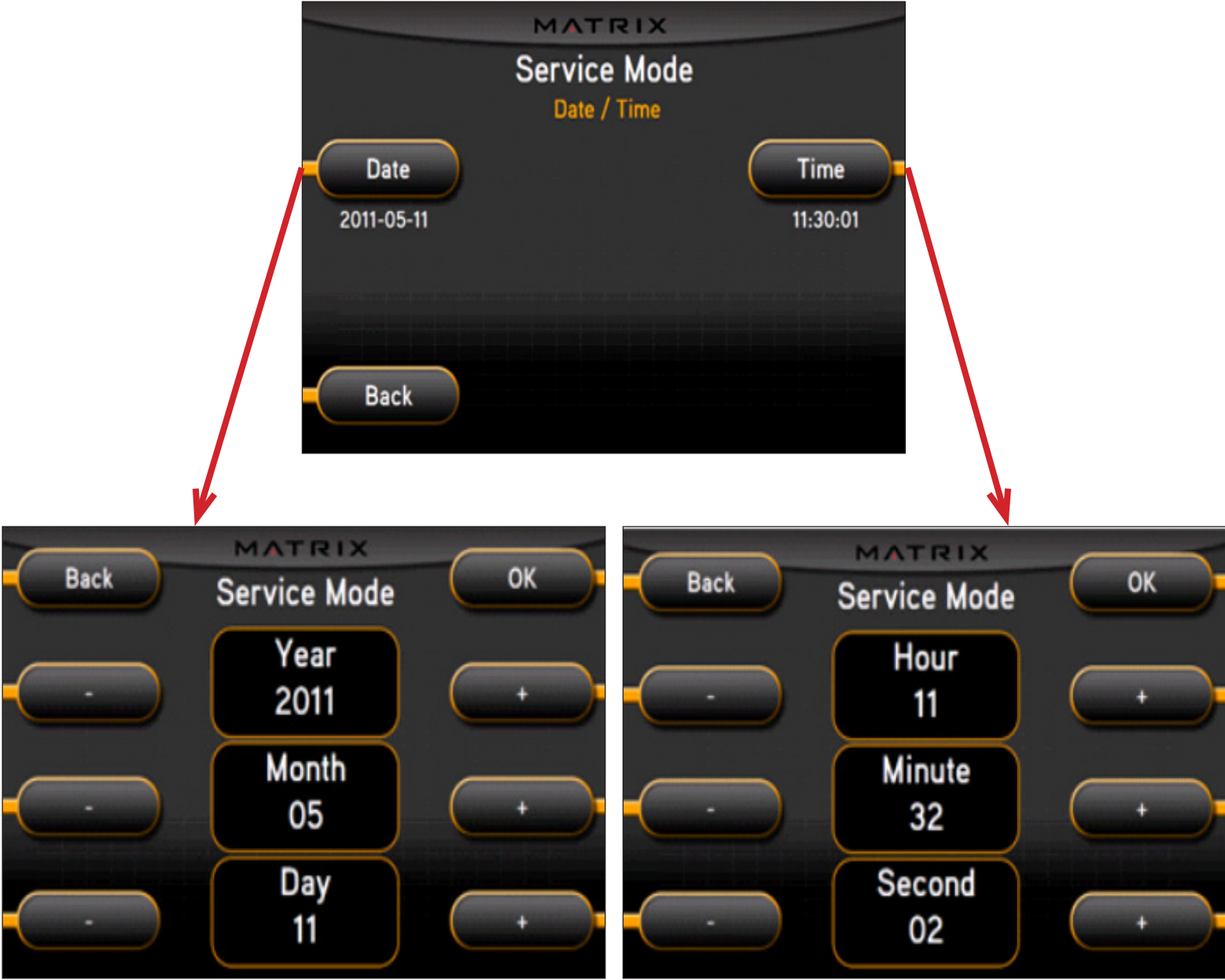
SERVICE MODE	FUNCTION & DEFAULTS	DESCRIPTIONS
Time	Date & Time	This option sets the current date and time on the machine.

7.5 SERVICE MODE - LOG TAB

SERVICE MODE	FUNCTION & DEFAULTS	DESCRIPTIONS
Log	Delete	This option deletes key components replacement history.
	Create	This option creates key components replacement history.

8.1 ELECTRICAL DIAGRAMS

7" TFT LCD MODULE

12V/0.9A(10.67W)

LMM

TV Splitter
TV Signal input
Output

TUNER BOARD (6.51W)

1.+12V_TUNER
2.+12V_TUNER
3.POWER_GND
4.POWER_GND
5.AR1
6.AL1
7.AUDIO_GND
8.CVBS1
9.VIDEO_GND
10.TUNER RX
11.TUNER TX
12.GND

J32

J26
1.VDD
2.VDD
3.
4.SAFE KEY NO
5.SAFE KEY
6.
7.GND
8.GND

12V/5A(33.48W)
LCB

C_safe and TV port (4.5W)

CN1
15.RX
14.TX
13.9V
12.CTS
11.GMD
10.R
9.L
8.GND
7.RX
6.TX
5.GND
4.R
3.L
2.+
1.+

J401
4.Control
3.Bright Control
2.GND
1.VDD+12V

J201
1.VDD(3.3V)
2.VDD(3.3V)
3.GROUND
4.GROUND

PROGRAM KEYPAD 5V/3mA J2

TV KEYPAD 5V/3mA J48

Earphone Board J1
Heart rate Wire

USB Board J1 5.1V/1A(5.1W)
Quick key wire

Lithium Battery 4.3V/1.5A(6.45W)
Quick key wire

HEART RATE BOARD J20 5V/0.05A(0.25W)
Heart rate Wire

Quick key connector J1
Quick key wire

8.2 ERROR CODES ON THE CONSOLE

CODE	CLASS	DESCRIPTION	SOLUTION
0x0441	B	When the UCB implements a command, the LCB is not receiving this command.	Check the machine type in Engineering Mode. Check the console cable connections at the UCB and LCB.
0x02AB	C	Machine type error.	Set the correct machine type in Engineering Mode.
0x02B4	C	Resistance type error.	Set the correct machine type in Engineering Mode.
0x04A0	C	Digital Communication Failure. LCB has no return message for the UCB for 3 seconds.	Check the console cable connections at the UCB and LCB. Replace the UCB or LCB as needed.
0x0201	A	Low voltage on the battery (voltage under 11.2V).	Charge the battery by running or by plugging in the AC adapter.
0x0247	B	LCB failed (memory write error / feedback ADC error).	Replace the LCB.
0x0248	B	Battery failure or disconnection (Voltage under 8V or over 15V).	Check the wire connections at the battery. Replace the battery.

CLASS C ERRORS WILL DISPLAY ON THE CONSOLE.

CLASS A OR B ERRORS WILL ONLY DISPLAY IN SERVICE MODE 5.

8.3 LCB LED INDICATORS

LED INDICATOR	DESCRIPTION
LED 1	RPM (AC Plug In).
LED 2	+5V
LED 3	+15V
LED 4	Bus Voltage
LED 5	RPM (Generator).
LED 6	Status 1 (Program operation).
LED 7	Status 2 (Resistance value in middle 1/2 VCC).
LED 8	Status 3 (Digital Communication).
LED 9	+12V (Console Power).

WITHOUT AC PLUG - NORMAL

LED 2 - LED 9 - On.
LED 1 - Off (No AC plug detected).
LED 5 - On (Generator power detected),

WITH AC PLUG - NORMAL

LED 2 - LED 9 - On.
LED 1 - On (AC plug detected).
LED 5 - Off (No Generator power detected).

LED 1

LED 5

8.4 TROUBLESHOOTING - DISPLAY ISSUES

NO DISPLAY ON THE CONSOLE OR THE DISPLAY IS DIM WHEN RUNNING
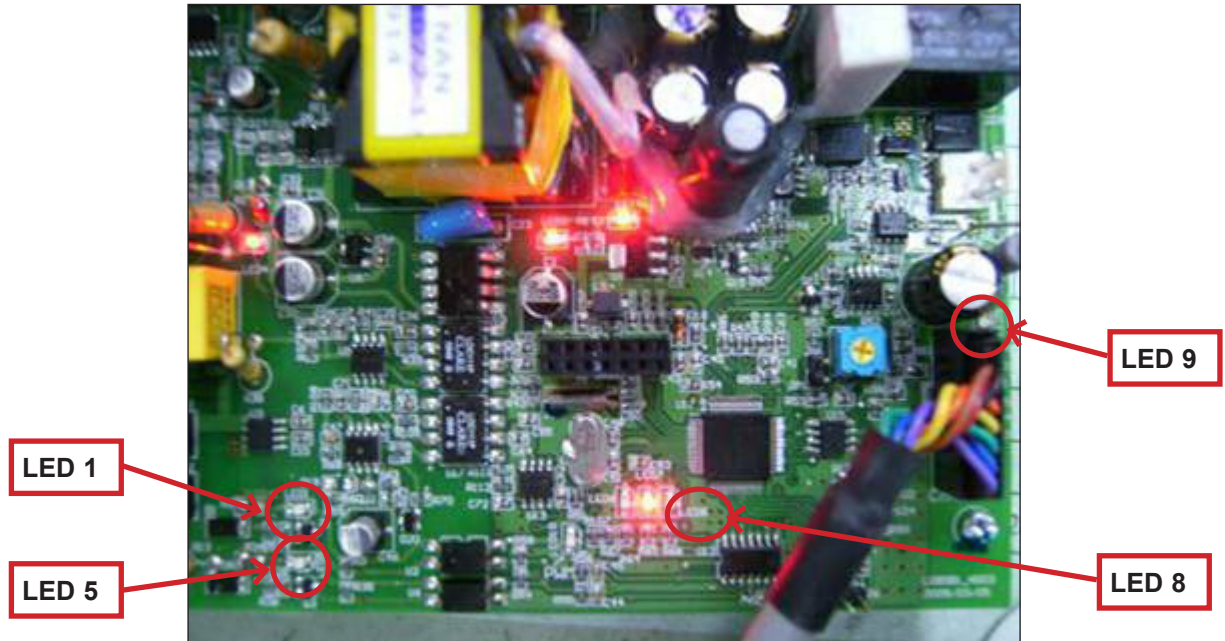
SYMPTOM: The console will not power up or the display is dim.

CHECK POINT	POSSIBLE ISSUE	SOLUTION
LEDs 2, 3, 4, 6, and 7 should be ON.	If they are OFF, the LCB is damaged.	Replace the LCB.
If LED 1 is OFF.	No AC power cord plugged in.	Normal for an non-powered unit.
If LED 5 is OFF.	Generator has no RPM output.	Normal for a powered unit. If non-powered and issue is still present, replace the generator.
If LED 8 is OFF.	Bad communication between UCB and LCB.	Reconnect the console cable at the LCB and UCB and check for kinks.
If LED 9 is OFF.	LCB is not providing 12V power to the UCB.	Replace the LCB.

SOLUTION IF LEDS ARE NORMAL:

1) If the LEDs are lit normally, replace the UCB and console cable.
2) if the issue is still present after the UCB and console cable are replaced, replace the LCB.

ERROR 0x04A0 (DIGITAL COMMUNICATION FAILURE)
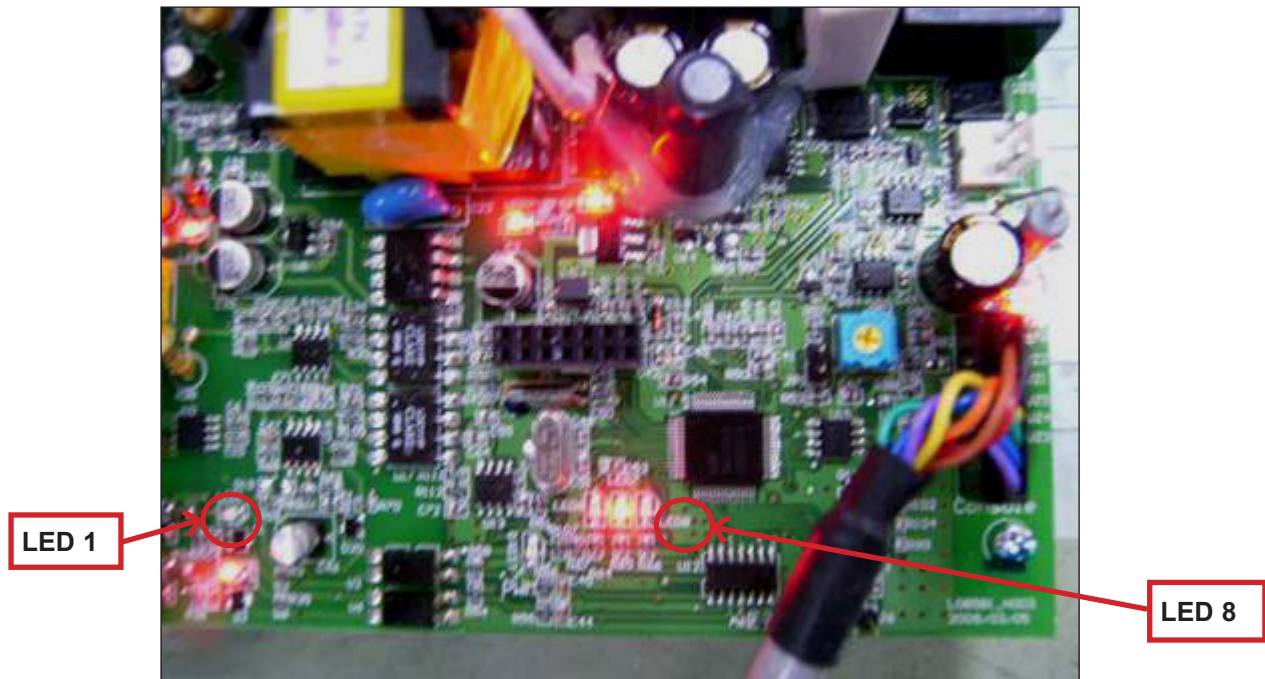
SYMPTOM: Error code 0x04A0 is displayed on the console.

CHECK POINT	POSSIBLE ISSUE	SOLUTION
LEDs 2, 3, 4, 6, and 7 should be ON.	If they are OFF, the LCB is damaged.	Replace the LCB.
If LED1 is OFF.	No AC power cord plugged in.	Normal for an non-powered unit.
If LED 8 is OFF.	Bad communication between UCB and LCB.	Reconnect the console cable at the LCB and UCB and check for kinks.

SOLUTION IF LEDS ARE NORMAL:

1) If the LEDs are lit normally, replace the UCB and console cable.
2) if the issue is still present after the UCB and console cable are replaced, replace the LCB.

ALL OR SOME OF THE FUNCTION KEYS DO NOT RESPOND

POSSIBLE CAUSES:

1) The keypad connection ribbon cable has not been plugged in correctly.
2) The keypad is damaged.
3) The UCB is damaged.

SOLUTION:

1) Perform a keypad test in Service Mode:
   a. Press ENTER, 3, 0, 0, 1, ENTER on the upper display and Service Mode will appear on the display.
   b. Press the key next to TEST on the display.
   c. Press the key next to KEYPAD on the display.
   c. Test the affected keypad. If the keypad works in the keypad test it may not be a functioning key in the program used for testing it.

2) Check the connections of the keypad at the UCB.
   a. Remove the console from the console mast.
   b. Remove the 6 screws holding the back of the console to the front (Figure A).
   c. Inspect the keypad ribbon cable connection at the UCB (Figure B).
   d. Even if the keypad ribbon cable appears to be connected correctly, unplug and re-seat the cable, then retest.

3) Replace the affected keypad.

4) Replace the UCB.

FIGURE A
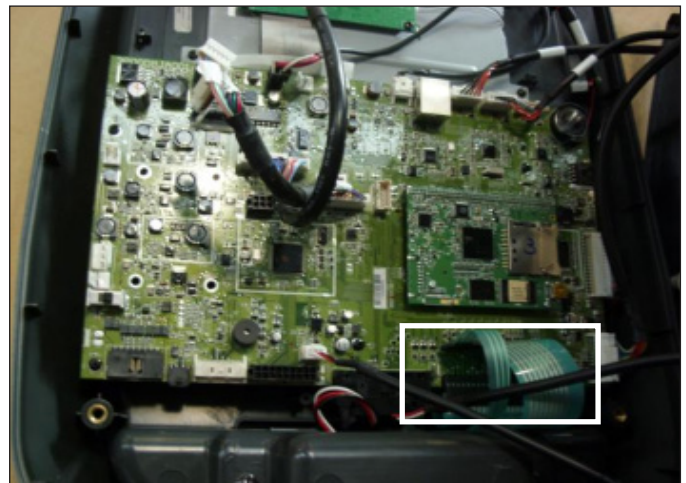
FIGURE B

PROBLEM:

The entertainment keypad is not recognizing the correct keys.

SOLUTION:

1) Perform a keypad test. To do so:
    a. Press ENTER, 3, 0, 0, 1, ENTER on the upper keypad to enter Service Mode.
    b. Press the key next to TEST on the display.
    c. Press the key next to KEYPAD on the display.
    d. The entertainment keypad can now be tested. Press various keys to see if the console is recognizing the correct keys (Figure A). If not, replace the keypad.
    e. If the keypad does not solve the issues, replace the console.

8.8 TROUBLESHOOTING - HEART RATE ISSUES

HEART RATE FUNCTION DOES NOT WORK OR IS READING INCORRECTLY

POSSIBLE CAUSES:

1) The chest strap being used is not making good contact with the user's chest.
2) The chest strap is at a low battery status.
3) The chest strap is damaged.
4) The HR grips are damaged.
5) The HR board is damaged.
6) The UCB is damaged.

SOLUTION:

1) Re-center the chest strap below the user's pectoral muscle (Figure A) and check again.

2) Replace the battery in the chest strap.

3) Replace the chest strap.

4) If there is no HR present, replace the HR grips.

5) If there is a HR present but it is much higher than normal, replace the HR board.

6) If replacing the HR grips and board does not resolve the issues, replace the console.
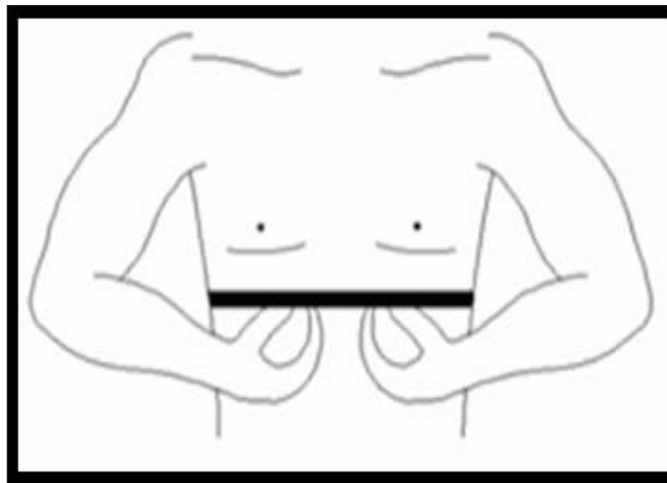
FIGURE A

8.9 TROUBLESHOOTING - TV ISSUES

1) For a fuzzy or unclear picture, see the TV programming instructions in Section 10. If the TV is still fuzzy or unclear after programming:
   a) Check the coax connection at the entertainment port (Figure A).
   b) Remove the 5 screws holding the console to the console mast and check the coax connection at the console (Figure B).
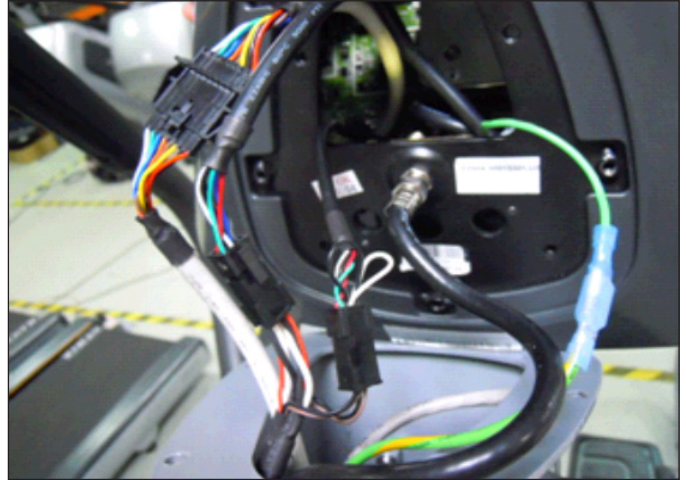
FIGURE A

FIGURE B

c) Use a verified good piece of coax cable (a good coax cable will have a signal strength of 10hz or greater) to plug directly into the back of the console bypassing the entertainment port. If this resolves the issue, replace the internal coax cable.

d) If plugging the coax cable into the back of the console does not resolve the issue, remove the console back and check the console cable connection at the tuner (Figure C).

e) Check the internal cables and fitting inside your machine at the console and below the front shroud (Figure D). Make sure you have no kinks, cuts, or poor connectors at the end of the cable. Fittings should have a clean flush connector with no stray aluminum strands touching the center conductor. Replace any suspect cables.
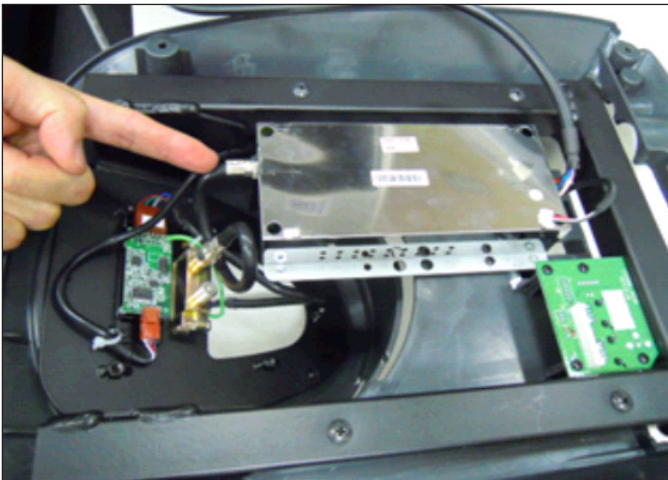
FIGURE C

FIGURE D

f) If no damage can be found on the cables, fittings, or connectors, and hooking the coax directly to the back of the console does not resolve the issue, replace the TV tuner.

9.1 CONSOLE REPLACEMENT

1) Turn off the power and disconnect the cord from the machine.
2) Remove the 5 screws that hold the console to the top of the console mast (Figure A).
3) Disconnect the console cable and other wiring and remove the console (Figure B).
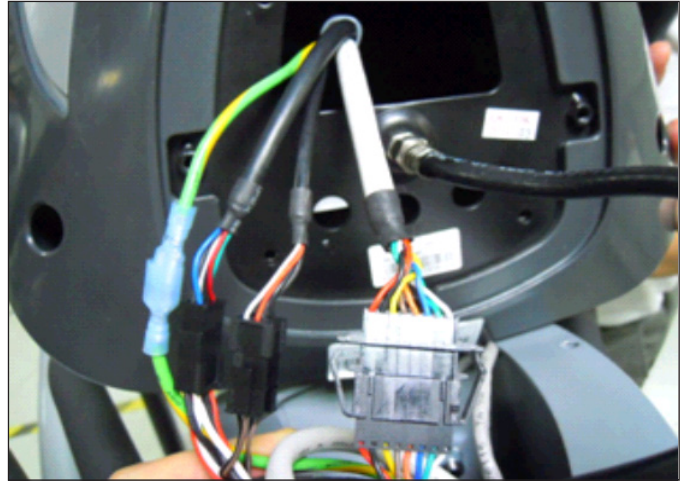
FIGURE A

FIGURE B

4) Connect the wire connections to the new console.
5) Carefully push the wires into the console and mast until they are clear of the console / mast connection and attach the console to the mast using the 5 screws removed in Step 2.
6) Test the stepper for function as outlined in Section 9.22.

9.2 HEART RATE HANDLEBAR REPLACEMENT

1) Remove the console as outlined in Section 9.1.
2) Remove the 3 screws holding on the heart rate handlebar to the console mast being careful to support the handlebar (Figure A).

FIGURE A

3) Carefully pull the wires from the console mast until the connectors are free and remove the defective handlebar (Figure B).

FIGURE B

4) Reverse Steps 1-3 to install a new handlebar.
5) Test the stepper for function as outlined in Section 9.22.

9.3 HEART RATE GRIPS REPLACEMENT

1) Using a short Phillips screwdriver to remove the 3 screws holding the HR grip together (Figure A). *NOTE:* If you do not have a short screwdriver, you may need to remove the console to give access to the HR grip screws.
2) Once the 3 screws are removed, the HR grip can be split into 2 pieces (Figure B).
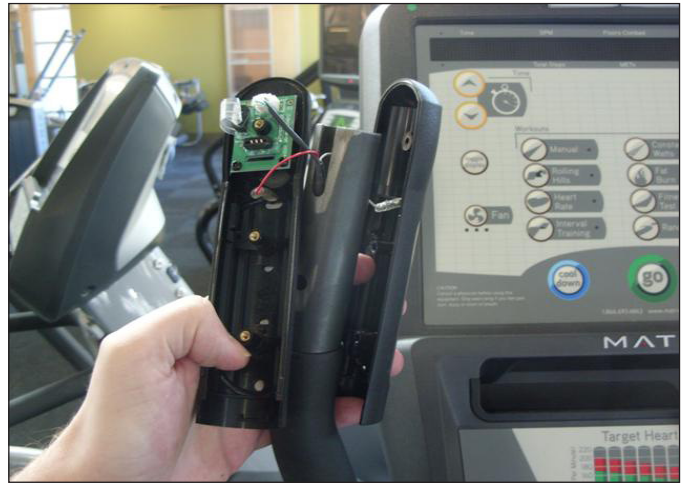
FIGURE A   **FIGURE B**

3) Disconnect the keypad / overlay wire connector and ribbon cable (Figure C) and the HR plate wiring and remove the old HR grip.
4) Reverse Steps 1-3 to install new HR grips. The white wire should be on the back side HR plate, the red wire on the front (Figure D).
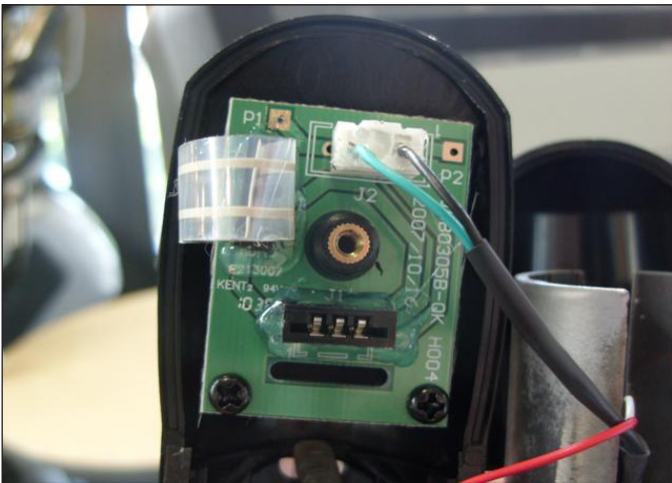
FIGURE C   **FIGURE D**

5) Test the stepper for function as outlined in Section 9.22.

9.4 CUP HOLDER REPLACEMENT

1) Remove the 2 screws holding the cup holder to the console mast (Figure A).

FIGURE A

2) Remove the cup holder (Figure B).

FIGURE B

3) Reverse Steps 1-2 to install a new cup holder.

9.5 CONSOLE KEYPAD / OVERLAY REPLACEMENT

NOTE: The instructions below are for console overlays / keypads, but the procedure is the same regardless of where the overlay / keypad is.
1) Remove the console as outlined in Section 9.1.
2) Remove the 2 screws holding on the back cover of the console and remove it (Figure A).
3) Remove the 4 screws holding the front of the console to the back and split the 2 halves (Figure B).
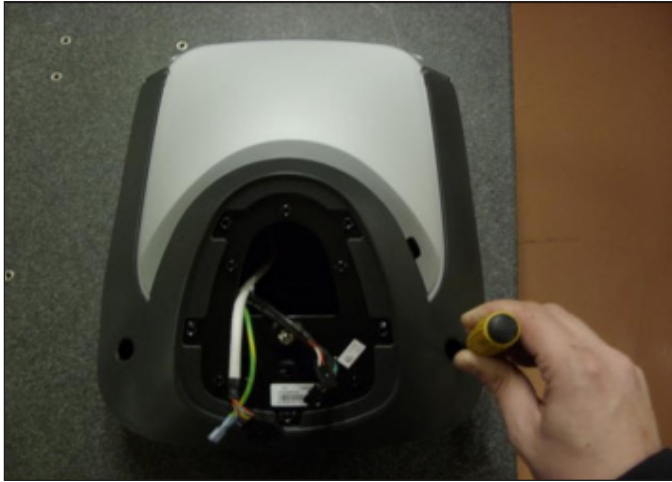
FIGURE A
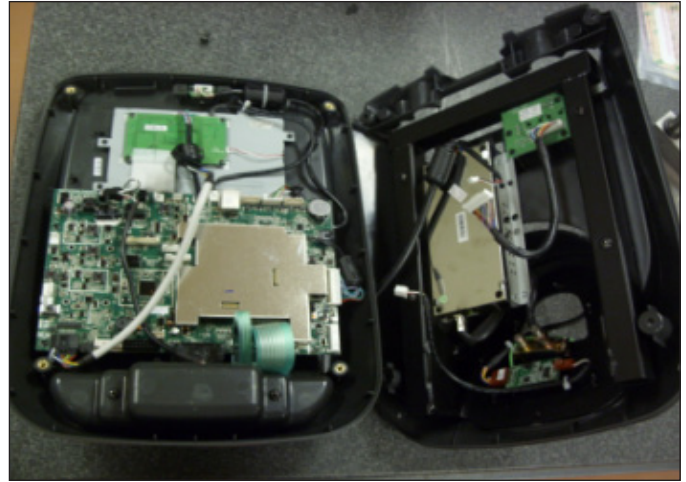
FIGURE B

3) Unplug the faulty keypad from the UCB (Figure C).
4) Use a razor to remove the faulty keypad / overlay from the console faceplate (Figure D).
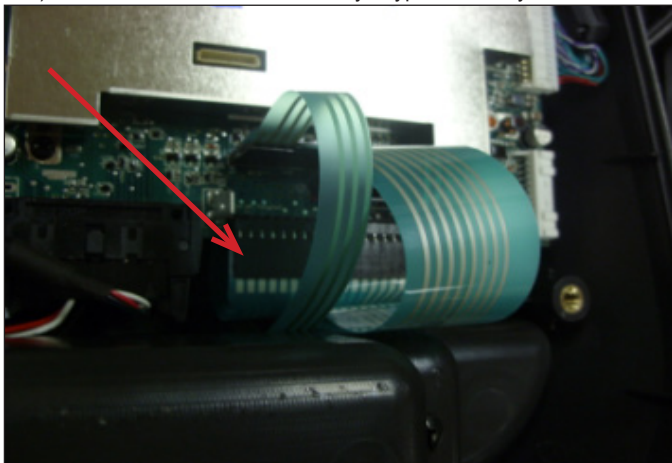
FIGURE C

FIGURE D

5) Clean the console area with alcohol to remove any left over adhesive (Figure E).

FIGURE E

9.5 CONSOLE KEYPAD / OVERLAY REPLACEMENT - CONTINUED

6) Remove the 6 screws holding the UCB to the console and remove it (Figure F & G).

FIGURE F

FIGURE G

7) Peel the backing off of the new keypad and slide the ribbon cable through the slot in the console faceplate (Figures H & I).

FIGURE H

FIGURE I

8) Plug the ribbon cable into the UCB, and remount the UCB to the console faceplate (Figure J). ***NOTE:*** If any cables were removed during Step 6, be sure to plug them back in.

9) Carefully line up the new keypad to the outline in the console faceplate. Once it is in place, press down on the keypad so that the adhesive on the keypad bonds to the console (Figure K).
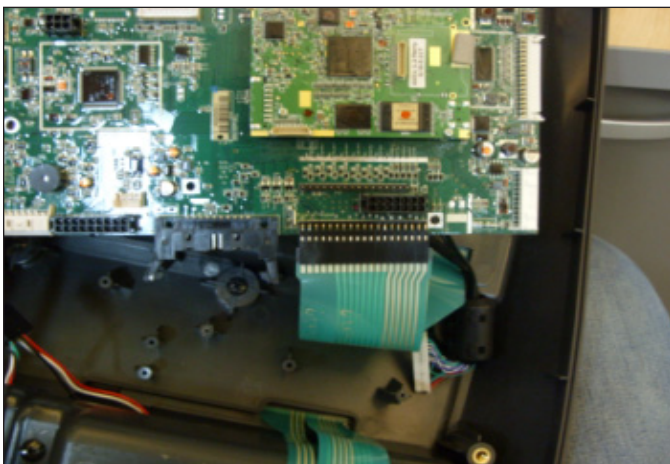
FIGURE J

FIGURE K

9.5 CONSOLE KEYPAD / OVERLAY REPLACEMENT - CONTINUED

10) Peel the backing off of the new overlay (Figure L).
11) Carefully line up the new overlay to the outline in the console faceplate. Once it is in place, press down on the overlay so that the adhesive on the overlay bonds to the keypad (Figure M).
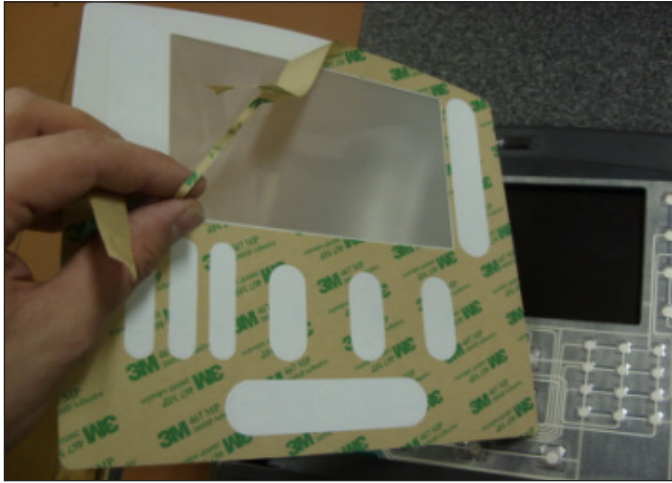
FIGURE L

FIGURE M

12) Reverse Steps 1-3 to re-assemble the console.
13) Test the Stepper for function as outlined in Section 9.22.

9.6 CONSOLE MAST REMOVAL

1) Remove the console as outlined in Section 9.1.
2) Remove the HR handlebars as outlined in Section 9.2.
3) Remove the 2 screws holding the stationary handlebar junction to the console mast and pull the handlebars away from the console mast (Figure A).

FIGURE A

4) Lift up the rubber boot at the bottom of the console mast (Figure B), and remove the 4 screws holding the console mast to the frame (Figure C).

FIGURE B

FIGURE C

5) Pull the wires out the bottom of the console mast and remove the mast.
6) Reverse Steps 1-5 to install a new console mast. NOTE: When installing a new console mast, be sure to pull the console wires up through the new mast prior to installing the 4 screws into the frame.
7) Test the stepper for function as outlined in Section 9.22.

9.7 UPPER STATIONARY HANDLEBAR REPLACEMENT

1) Remove the 2 screws holding the upper stationary handlebar junction to the console mast and lean it away from the console mast (Figure A).
2) Pull the defective upper stationary handlebar out of the upper stationary handlebar junction (Figure B).
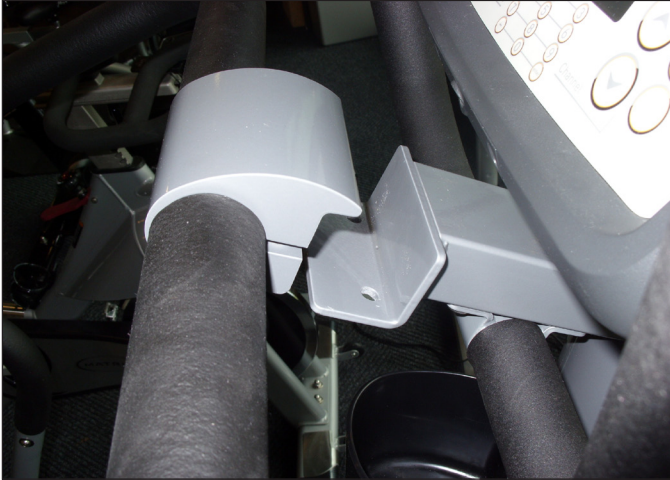
FIGURE A

FIGURE B

3) Remove the 2 screws holding the bottom of the defective upper stationary handlebar to the lower stationary handlebar (Figure C).
4) This will allow you to remove the upper stationary handlebar (Figure D).

FIGURE C

FIGURE D

5) Reverse Steps 1-4 to install a new upper stationary handlebar.   *NOTE*: Be sure to tighten the upper handlebar junction screws so that the handlebars are even.

9.8 LOWER STATIONARY HANDLEBAR REPLACEMENT

1) Remove the upper stationary handlebar on the side with a defective lower stationary handlebar as outlined in Section 9.7.
2) Remove the 2 screws holding the lower stationary handlebar to the rear stabilizer (Figure A).

FIGURE A

3) This will allow you to remove the lower stationary handlebar from the unit (Figure B).

FIGURE B

4) Reverse Steps 1-3 to install a new lower stationary handlebar.

9.9 REAR STABILIZER COVER REPLACEMENT

1) Remove the 4 screws holding the rear stabilizer cover to the frame (Figure A).
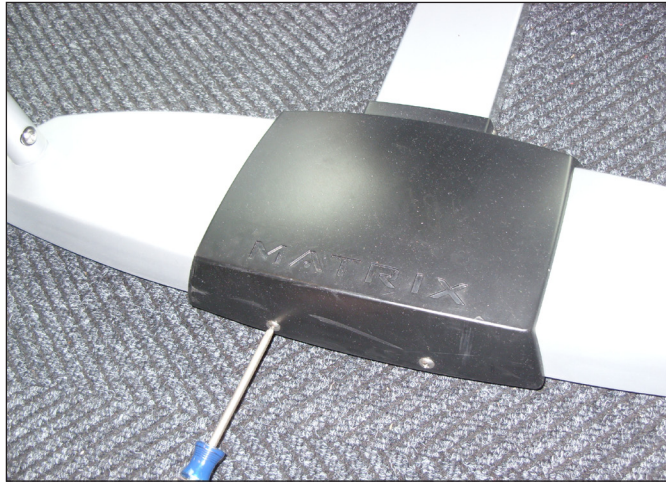
FIGURE A

2) Pull the rear stabilizer cover upward and off the unit (Figure B).

FIGURE B

3) Reverse Steps 1-2 to install a new rear stabilizer cover.

9.10 REAR STABILIZER REPLACEMENT

1) Remove the upper stationary handlebars as outlined in Section 9.7.
2) Remove the lower stationary handlebars as outlined in Section 9.8.
3) Remove the rear stabilizer cover as outlined in Section 9.9.
4) Remove the 4 screws holding the rear stabilizer to the frame and remove the stabilizer (Figure A).
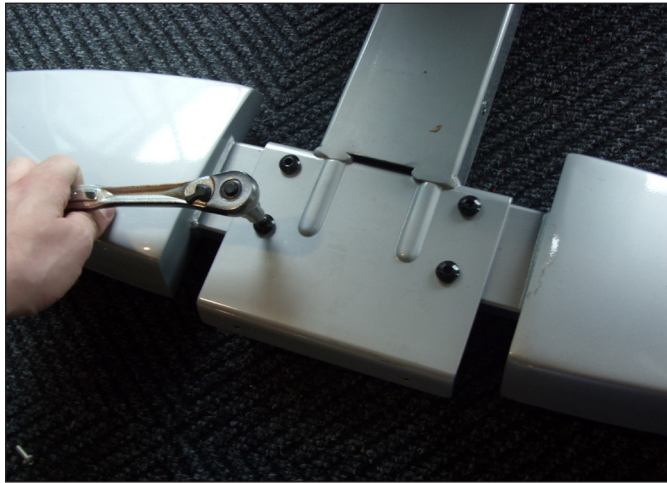
FIGURE A

5) Reverse Steps 1-4 to install a new rear stabilizer. ***NOTE:*** When installing a new stabilizer, the leveling feet may need to be transferred from the old stabilizer to the new one (Figure B).

FIGURE B

9.11 SHROUDS REMOVAL

1) Remove the 10 screws holding the right side shroud to the frame (Figure A).
2) Remove the 10 screws holding the left side shroud to the frame (Figure B).
3) Figure C shows the stepper with both shrouds removed.

FIGURE A

FIGURE B

FIGURE C

9.12 LOWER CONTROL BOARD REPLACEMENT

1) Remove the right side shroud as outlined in Section 9.11.
2) Disconnect the 5 wire connections to the lower board (Figure A).
3) Remove the 2 screws holding the lower board to the frame, and remove the lower board.

FIGURE A

4) Reverse Steps 1-3 to install a new lower board. Figure B shows the connections at the board.

3 Pin Connector from the Generator

8 Pin Connector from the Console

2 Pin Connector from the Filter

2 Pin Connector from the Battery

2 Pin Connector from the AC power source

FIGURE B

5) Test the stepper for function as outlined in Section 9.22.

9.13 GENERATOR BELT REPLACEMENT

1) Remove both shrouds as outlined in Section 9.11.
2) Loosen the 6 screws holding the generator to the frame (Figure A).
3) Loosen the eye bolt nut that applies tension to the generator belt (Figure B) and slide the generator towards the back of the unit to release the generator belt tension.
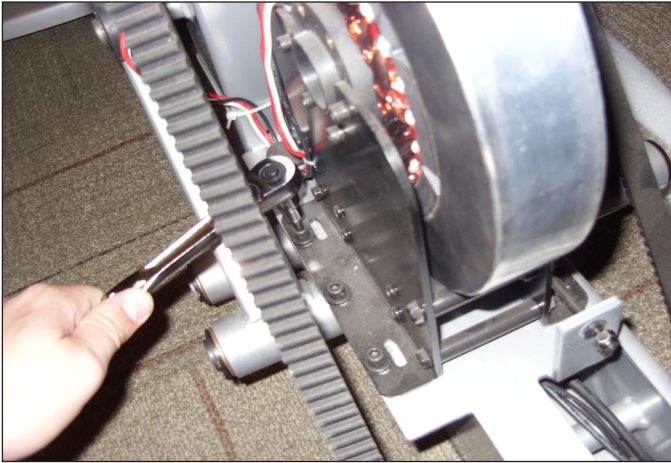
FIGURE A
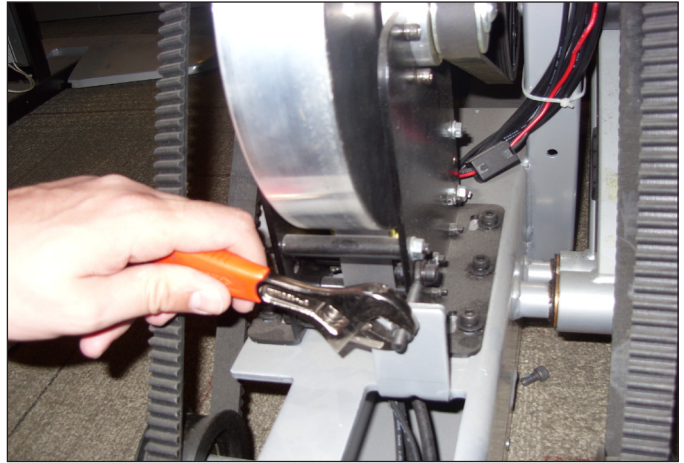
FIGURE B

4) Walk the belt off of the generator pulley (Figure C).
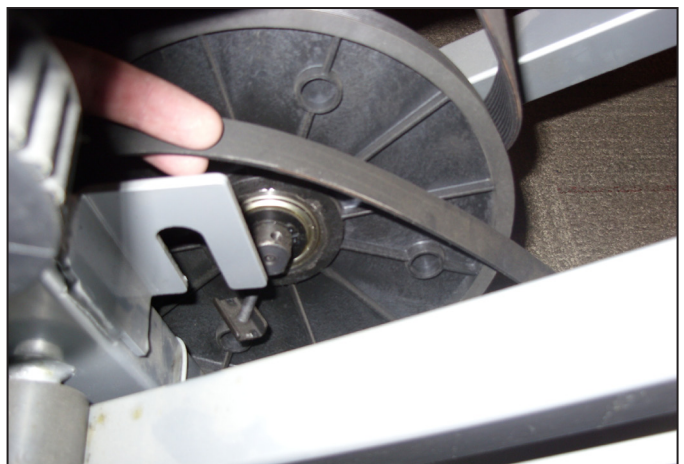5) Loosen the 2 eye bolts holding the center axle to the frame (Figure D).
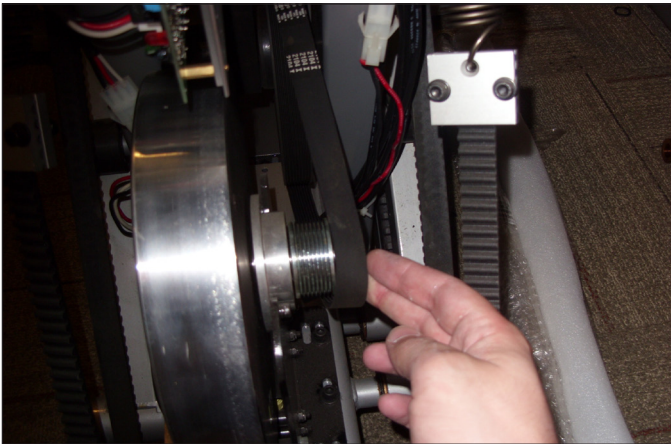
FIGURE C

FIGURE D

6) Lift up on the center axle and walk the belt off of the drive pulley (Figure E).
7) This will allow you to drop the center axle out of the frame and to remove the generator belt (Figure F).
8) Reverse Steps 1-7 to install a new generator belt. **NOTE:** Tighten the replacement generator belt to 85 ft / lbs.
9) Test the stepper for function as outlined in Section 9.22.
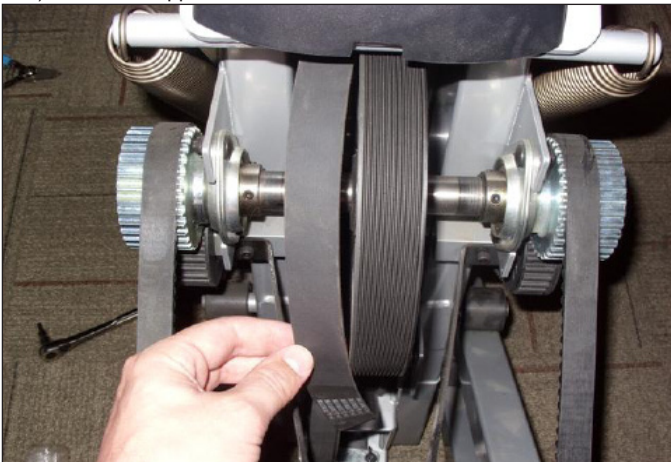
FIGURE E

FIGURE F

9.14 GENERATOR REPLACEMENT

1) Remove the shrouds as outlined in Section 9.11.
2) Remove the 6 screws holding the generator to the frame (Figure A).
3) Remove the nut from the tension eye bolt (Figure B).
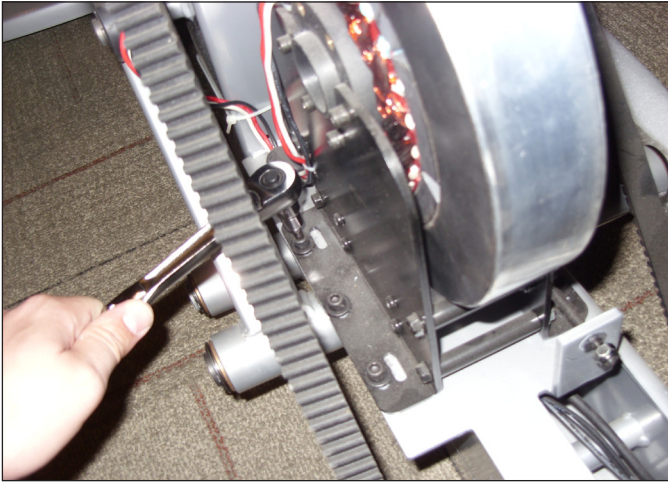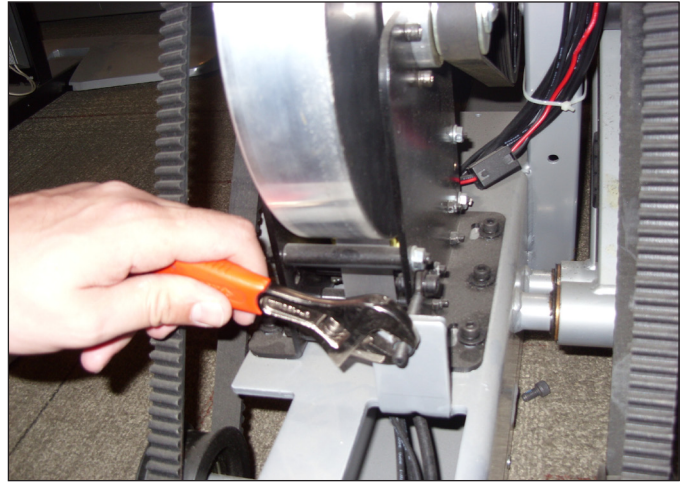
FIGURE A

FIGURE B

4) Once the nut from the tension eye bolt has been removed, the generator belt can be walked off the generator pulley (Figure C).
5) Disconnect the generator wire harness (Figure D), and remove the generator.
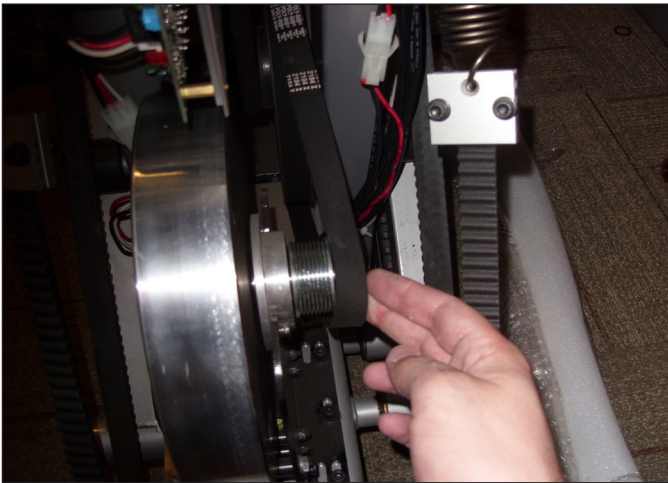
FIGURE C
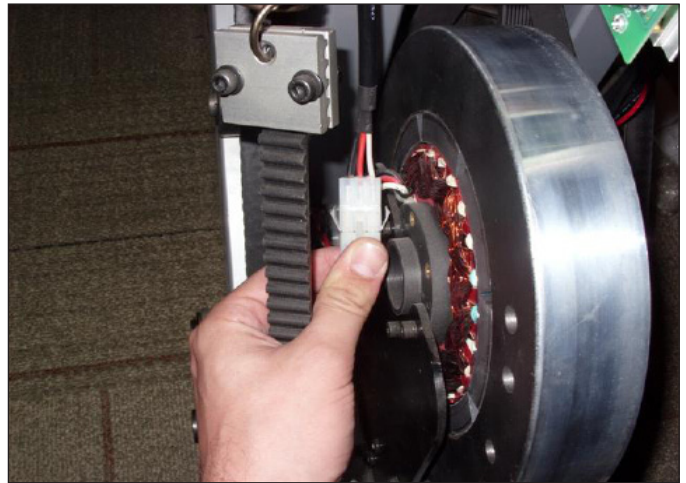
FIGURE D

6) Reverse Steps 1-5 to install a new generator. *NOTE:* Be sure to re-tension the generator belt to 85 ft / lbs. .
7) Test the stepper for function as outlined in Section 9.22.

9.15 CENTER AXLE REPLACEMENT

1) Remove the shrouds as outlined in Section 9.11.
2) Loosen the 6 screws holding the generator to the frame (Figure A).
3) Loosen the nut from the tension eye bolt (Figure B).

FIGURE A

FIGURE B

4) Once the nut from the tension eye bolt has been removed, the generator belt can be walked off the generator pulley (Figure C).
5) Loosen the 2 eye bolts holding the center axle to the frame (Figure D).
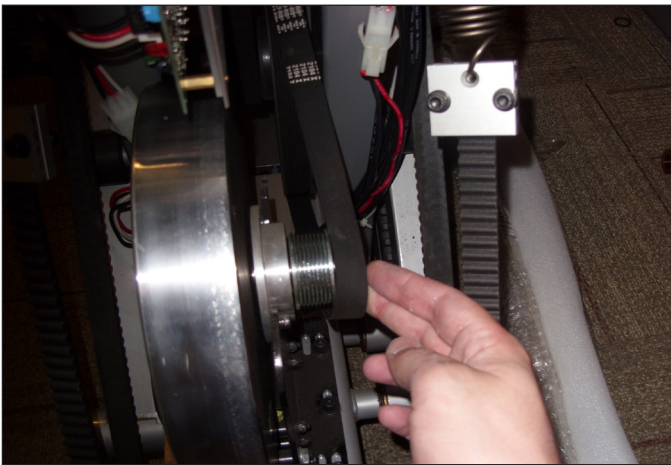
FIGURE C

FIGURE D

6) Lift up on the center axle and walk the belt off of the drive pulley (Figure E).
7) This will allow you to drop the center axle out of the frame and to remove the generator belt and center axle (Figures F).
8) Test the stepper for function as outlined in Section 9.22.
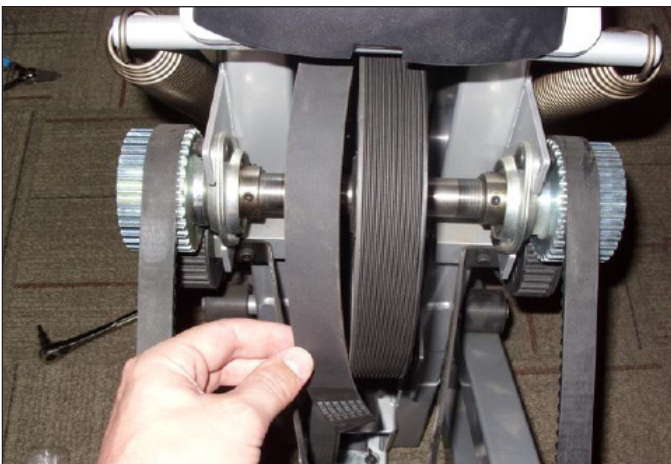
FIGURE E

FIGURE F

9.16 DRIVE BELT REPLACEMENT

1) Remove the shrouds as outlined in Section 9.11.
2) Loosen the 6 screws holding the generator to the frame (Figure A).
3) Loosen the nut from the tension eye bolt (Figure B).
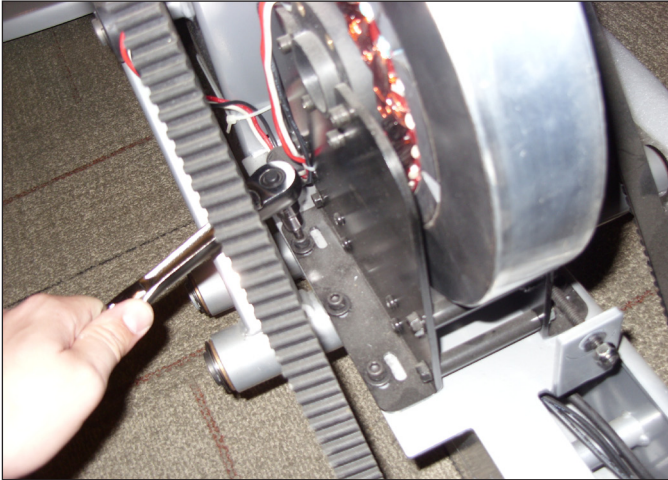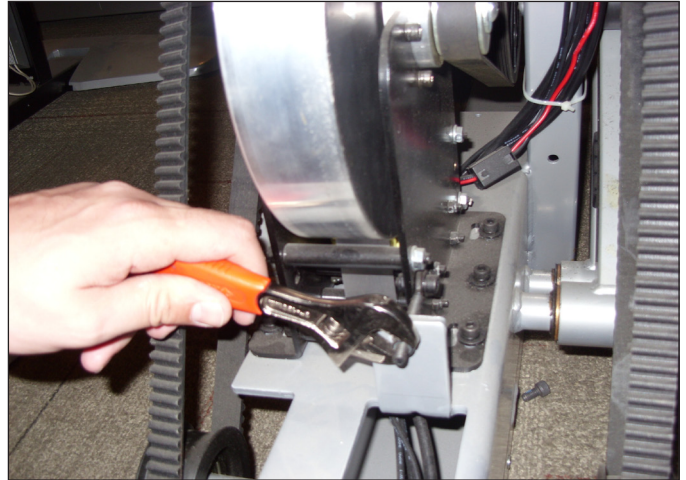
FIGURE A

FIGURE B

4) Once the nut from the tension eye bolt has been loosened, the generator belt can be walked off the generator pulley (Figure C).
5) Loosen the 2 eye bolts holding the center axle to the frame (Figure D).
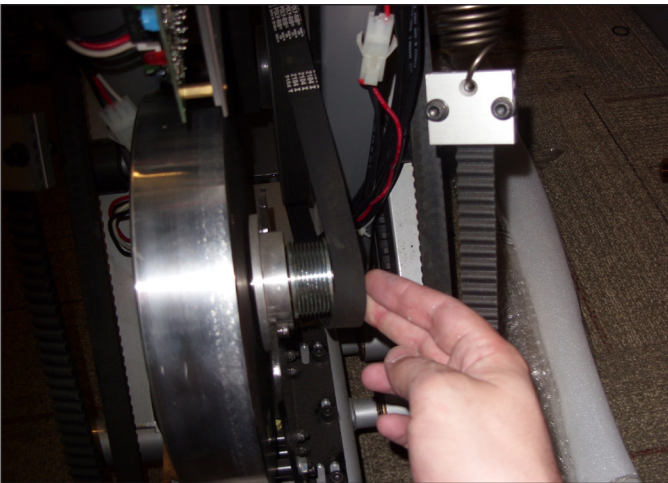
FIGURE C

FIGURE D

9.16 DRIVE BELT REPLACEMENT - CONTINUED

6) Lift up on the center axle and walk the belt off of the drive pulley (Figure E).
7) This will allow you to drop the center axle out of the frame and to remove the drive belt from around it (Figures F).
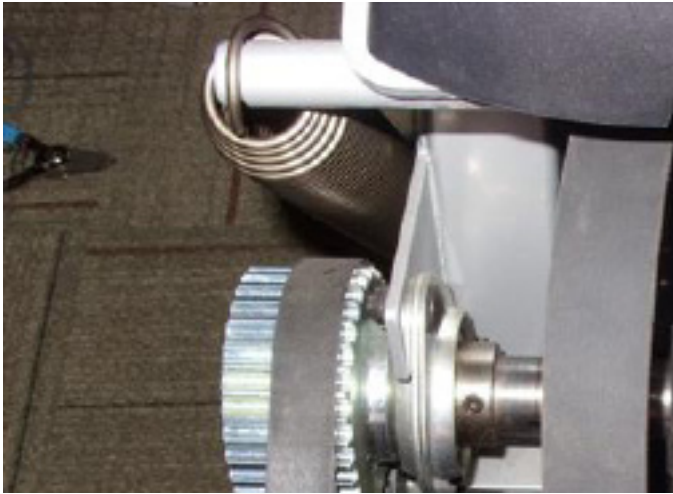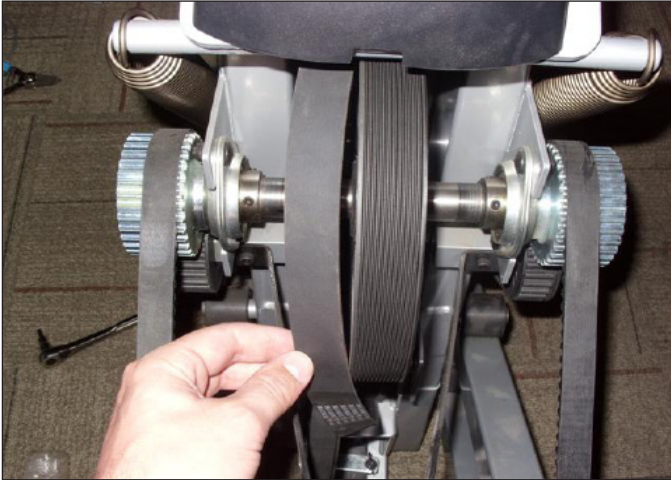

FIGURE E

FIGURE F

8) Disconnect the 2 pedal belt springs from the around the drive axle set (Figure G).
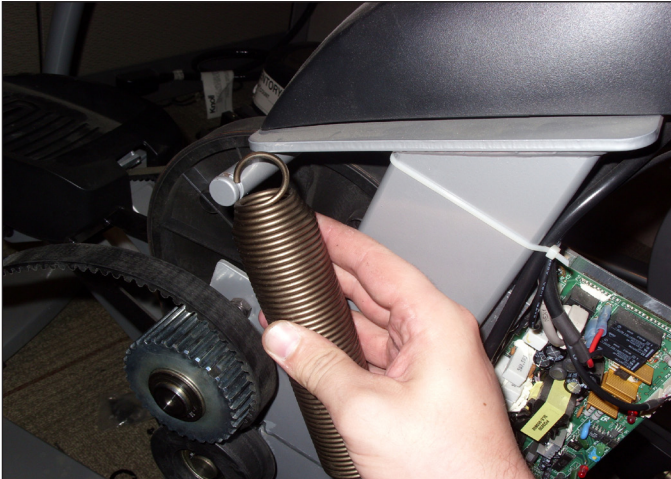9) Remove the 2 screws on each side holding the drive axle set to the frame (Figure H).
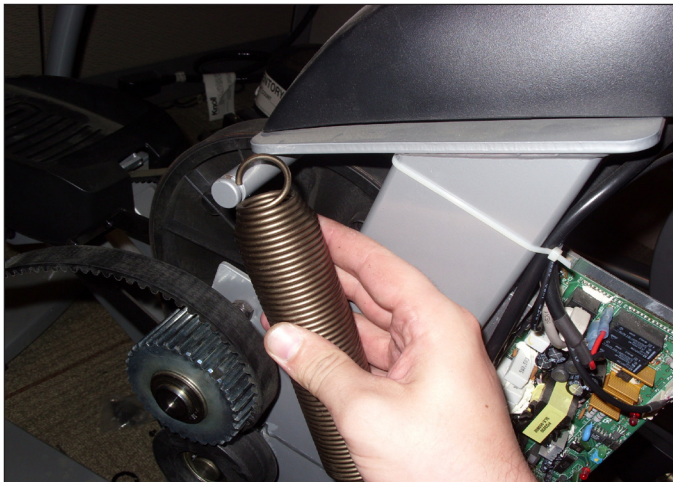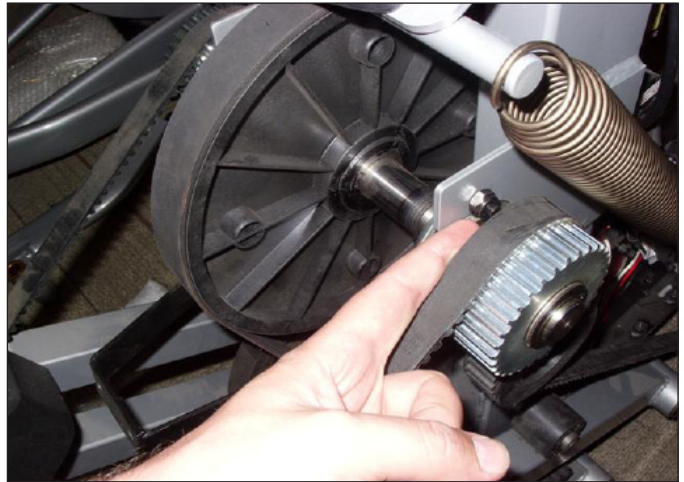
FIGURE G

FIGURE H

10) This will allow you to remove the drive axle set and drive belt.
11) Reverse Steps 1-10 to install a new drive belt. ***NOTE:*** Tighten the new drive belt to 145 ft / lbs.
12) Test the stepper for function as outlined in Section 9.22.

9.17 DRIVE AXLE SET REPLACEMENT

1) Remove the shrouds as outlined in Section 9.11.
2) Loosen the 6 screws holding the generator to the frame (Figure A).
3) Loosen the nut from the tension eye bolt (Figure B).
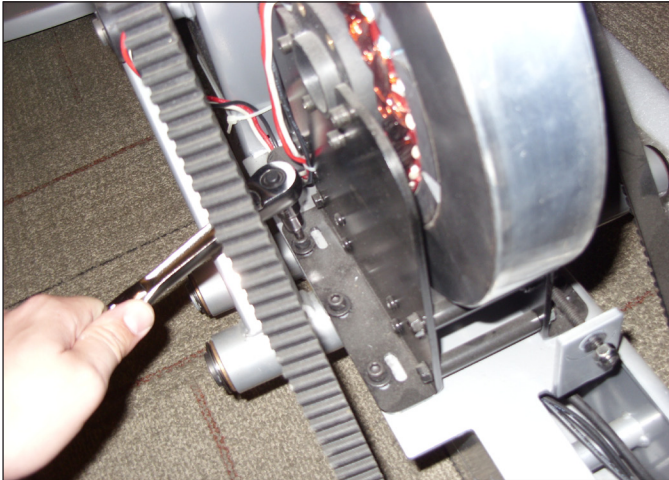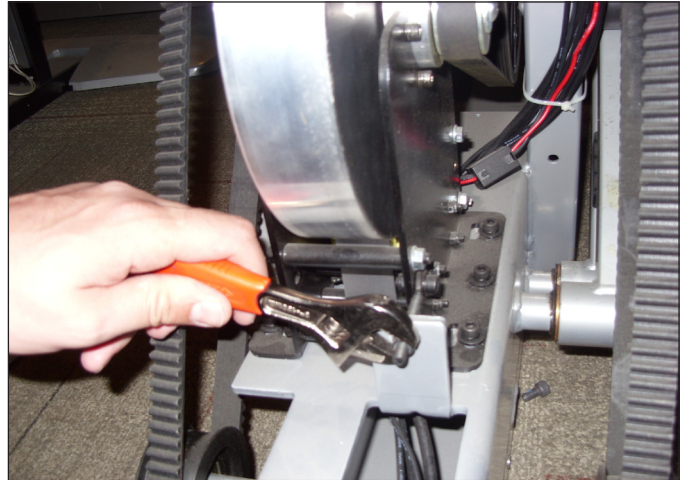
FIGURE A

FIGURE B

4) Once the nut from the tension eye bolt has been loosened, the generator belt can be walked off the generator pulley (Figure C).
5) Loosen the 2 eye bolts holding the center axle to the frame (Figure D).
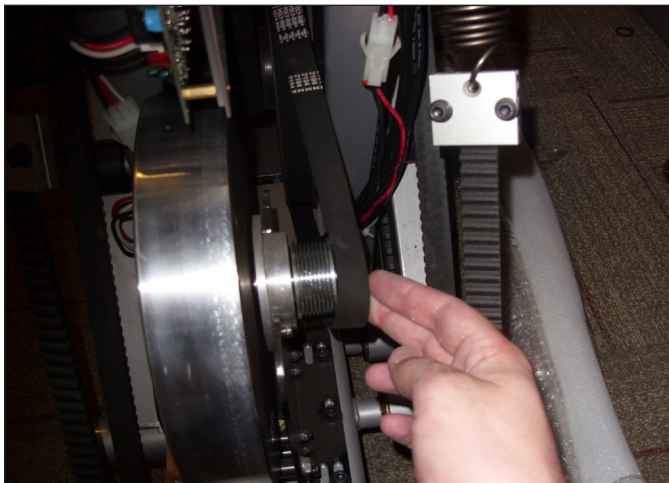
FIGURE C

FIGURE D

9.17 DRIVE AXLE SET REPLACEMENT - CONTINUED

6) Lift up on the center axle and walk the belt off of the drive pulley (Figure E).
7) This will allow you to drop the center axle out of the frame and to remove the drive belt from around it (Figure F).

FIGURE E

FIGURE F

8) Disconnect the 2 pedal belt springs from the around the drive axle set (Figure G).
9) Remove the 2 screws on each side holding the drive axle set to the frame (Figure H).

FIGURE G

FIGURE H

10) This will allow you to remove the drive axle set and drive belt.
11) Reverse Steps 1-10 to install a new drive axle set. **NOTE**: Tighten the new drive belt to 145 ft / lbs.
12) Test the stepper for function as outlined in Section 9.22.

9.18 PEDAL REPLACEMENT

1) Remove the shrouds as outlined in Section 9.11.
2) Remove the 4 screws under the pedal frame going up into the plastic (Figures A & B).

FIGURE A

FIGURE B

3) This will allow you to remove the pedal (Figure C).

FIGURE C

4) Reverse Steps 1-3 to install a new pedal.

9.19 PEDAL BELT REPLACEMENT

1) Remove the shrouds as outlined in Section 9.11.
2) Disconnect the pedal belt beneath the pedal frame by removing the 2 screws on the pedal re-tension bracket (Figure A).
3) This will allow you to remove the belt from the pedal frame (Figure B).

FIGURE A

FIGURE B

4) Disconnect the pedal belt spring from the drive axle set, and remove the pedal belt (Figure C).

FIGURE C

5) Reverse Steps 1-4 to install a new pedal belt. *NOTE:* When reinstalling a new pedal belt, it is easier to attach the belt beneath the pedal frame, then attach the pedal belt spring to the drive axle set.
6) Test the stepper for function as outlined in Section 9.22.

9.20 PEDAL ARM REPLACEMENT

1) Remove the shrouds as outlined in Section 9.11.
2) Remove the pedal as outlined in Section 9.18.
3) Disconnect the pedal belt beneath the pedal frame by removing the 2 screws on the pedal re-tension bracket (Figure A).
4) This will allow you to remove the belt from the pedal frame (Figure B).
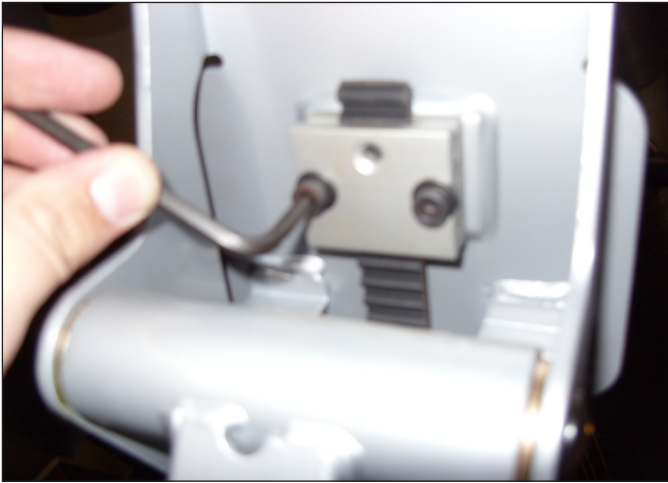
FIGURE A

FIGURE B

5) Remove the snap ring holding the pedal arm to the frame (Figure C).
6) Remove the pedal arm (Figure D).

FIGURE C
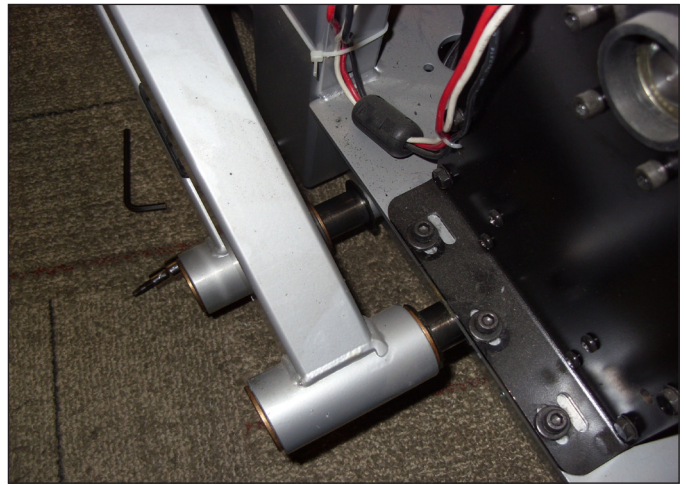
FIGURE D

7) Reverse Steps 1-6 to install a new pedal arm.
8) Test the stepper for function as outlined in Section 9.22.

9.21 BATTERY REPLACEMENT

1) Remove the shrouds as outlined in Section 9.11.
2) Disconnect the 2 wires going to the battery (Figure A).

FIGURE A

3) Remove the 2 wing nuts holding the battery to the frame (Figure B) and remove the battery.

FIGURE B

4) Reverse Steps 1-3 to install a new battery.
5) Test the stepper for function as outlined in Section 9.22.

9.22 TESTING THE STEPPER

ONCE THE UNIT OR REPLACEMENT PART IS FULLY INSTALLED AND ASSEMBLED AND PROPERLY PLACED ON THE FLOOR, USE THE FOLLOWING INSTRUCTIONS TO TEST THE MACHINE:

1) Enter Service Mode (ENTER, 3, 0, 0, 1, ENTER) and input the serial number of the console. Also set the Machine Type (See Section 7.2) and verify that the Date and Time are correct (See Section 7.4). ***NOTE:*** If a setting has been changed, the unit and console power should be reset. Cycle the power switch, and press and hold the CHANNEL UP and CHANNEL DOWN keys for 3-5 seconds to reset the console power.

2) Enter Manager Mode (ENTER, 1, 0, 0, 1, ENTER) and turn on or off Virtual Active depending on whether the club has this function. ***NOTE:*** If a setting has been changed, the unit and console power should be reset. Cycle the power switch, and press and hold the CHANNEL UP and CHANNEL DOWN keys for 3-5 seconds to reset the console power.

3) Without hitting start or entering any program modes, step on the pedals and hold the handlebars while stepping to simulate exercising. While moving, listen for any odd noises or squeaks.

4) After stopping movement, press the GO button and begin stepping.

5) Grasp the hand grips to check for proper heart rate response.

6) Press the level up and down buttons on the console and hand grips to make sure resistance is fully functional.

7) If everything functions properly, stop stepping (or press STOP) and the unit will reset to normal operation within 30 seconds.

10.1 STEPPER SPECIFICATIONS

| *CONSOLE*	
Display Type	7" LCD
Display Feedback	Time, Distance, Calories, Calories per hour, Speed, Incline, SPM, Heart Rate, METs, Watts, Dynamic Profile Display, Static Profile Display
Programs	Manual, Rolling, Intervals, Fat Burn, Random, Target Heart Rate, Constant Watts, Fitness Test
Fitconnexion Ready	Yes
Wireless Data Transmitter	No
iPod Compatible	No
Nike + iPod Compatible	No
Personal Fan	No
Language Options	English, Italian, German, Spanish, French, Dutch, Portuguese, Japanese, Korean, Swedish, Finnish
Virtual Active Ready	Yes
Asset Management Ready	No
TECHNICAL DATA	
Resistance Technology	JID™ Brushless Generator
Resistance Levels	25
Minimum Watts	N/A
Power Requirements	120V / 60Hz AC Power
Dimensions (L x W x H)	45" x 31" x 70.5" / 114.3 x 78.7 x 179.1 cm
Product Weight	255 lbs / 116 kg
Shipping Weight	271 lbs / 123.5 kg
Max User Weight	400 lbs / 181 kg
SPECIAL FEATURES	
Step Range	12.2"
Contact & Telemetric Heart Rate	Yes
Ultra Non-slip Pedals	Yes
Q Factor	3.3"
Handlebar Design	Ergonomically designed handrails and horn
Thumb Switch Controls	Yes

10.2 FASTENERS AND ASSEMBLY TOOLS

QUANTITY	PART #	SKETCH	DESCRIPTION	PACKAGE COLOR
1	Z52		5MM ALLEN WRENCH	PURPLE
1	Z53		6 MM ALLEN WRENCH	PURPLE
1	Z50		#2 PHILLIPS SCREWDRIVER	PURPLE
8	Z01		SOCKET HEAD SCREW (M8 X 16L)	WHITE
8	Z02		LOCK WASHER	WHITE
2	Z34		SOCKET HEAD SCREW (M8 X 25L)	GREEN
4	Z02		LOCK WASHER	BLACK
4	Z07		BUTTON HEAD SCREW (M8 X 40L)	BLACK
2	Z02		LOCK WASHER	YELLOW
2	Z10		BUTTON HEAD SCREW (M8 X 16L)	YELLOW
2	Z03		SCREW SET	ORANGE
4	Z05		BUTTON HEAD SCREW (M8 X 16L)	ORANGE
8	Z06		ARC WASHER	ORANGE
3	Z04		LOCK WASHER	GREEN
3	Z05		BUTTON HEAD SCREW (M8 X 16L)	GREEN
4	Z09		BUTTON HEAD SCREW (M5 X 15L)	RED

10.3 ASSEMBLY INSTRUCTIONS

STEP 1
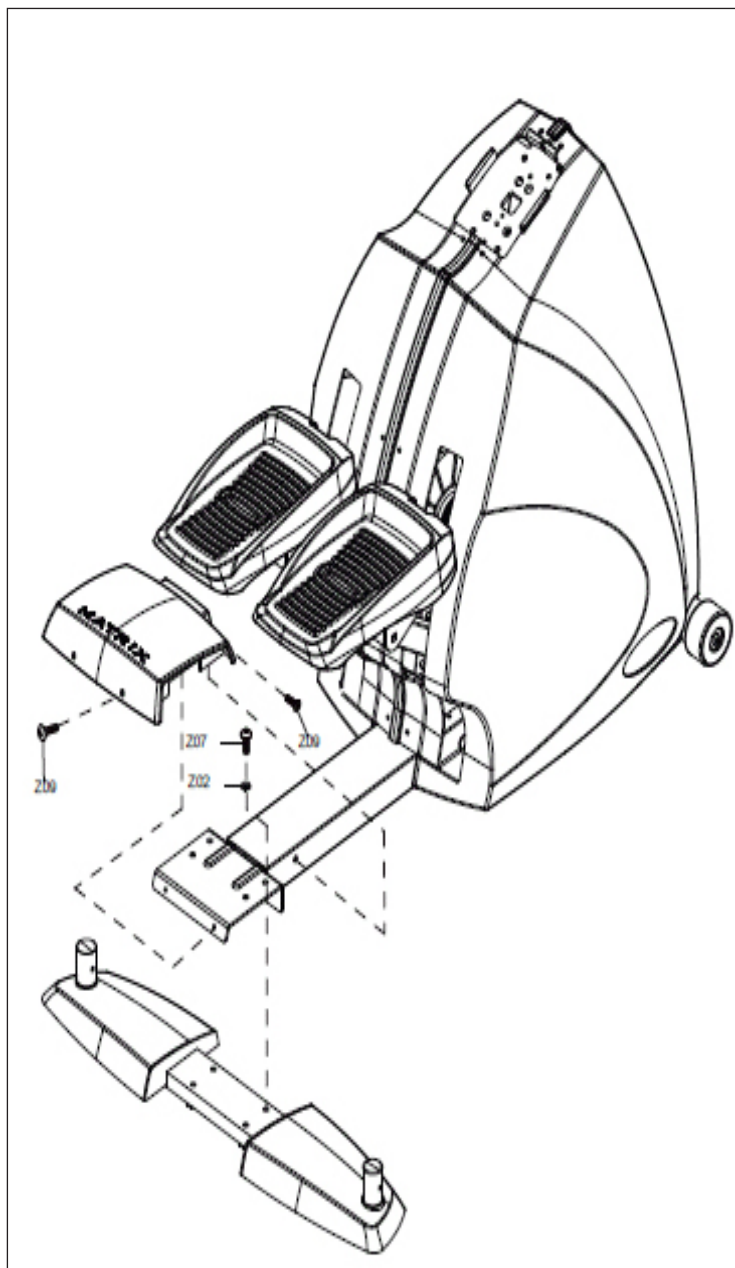
STEP 2

10.3 ASSEMBLY INSTRUCTIONS - CONTINUED
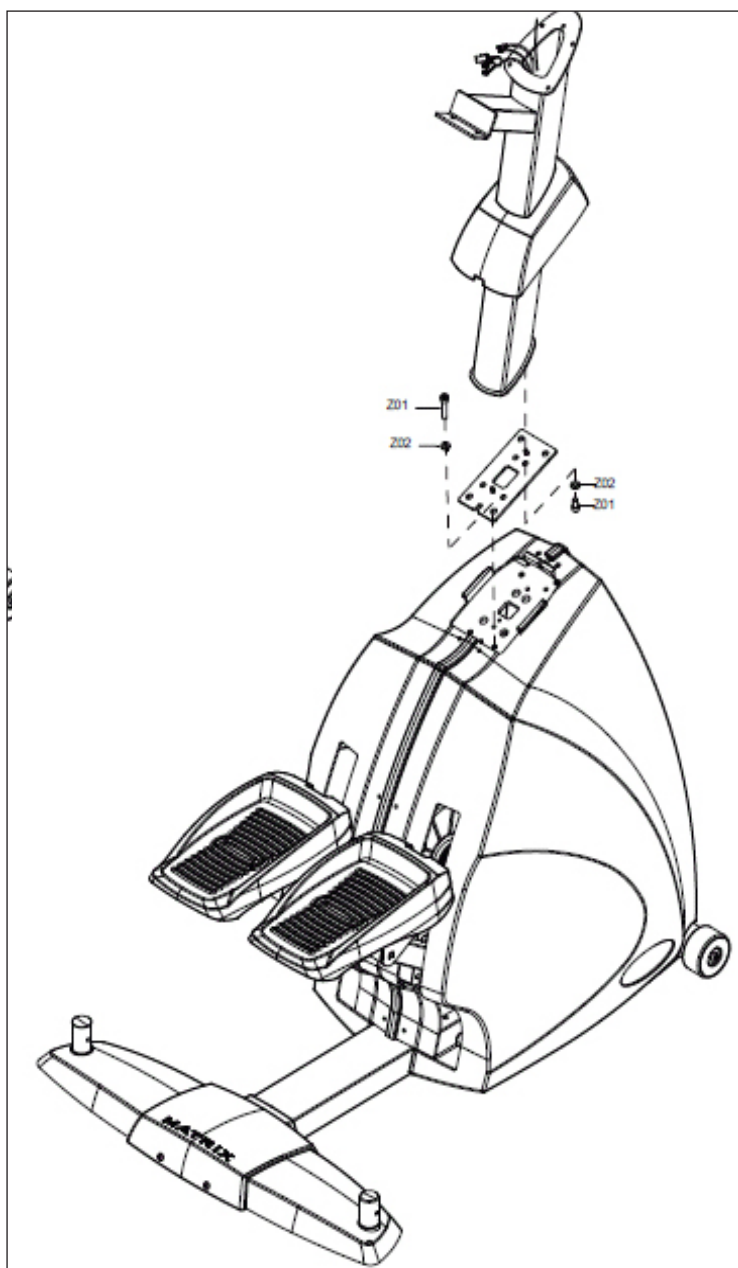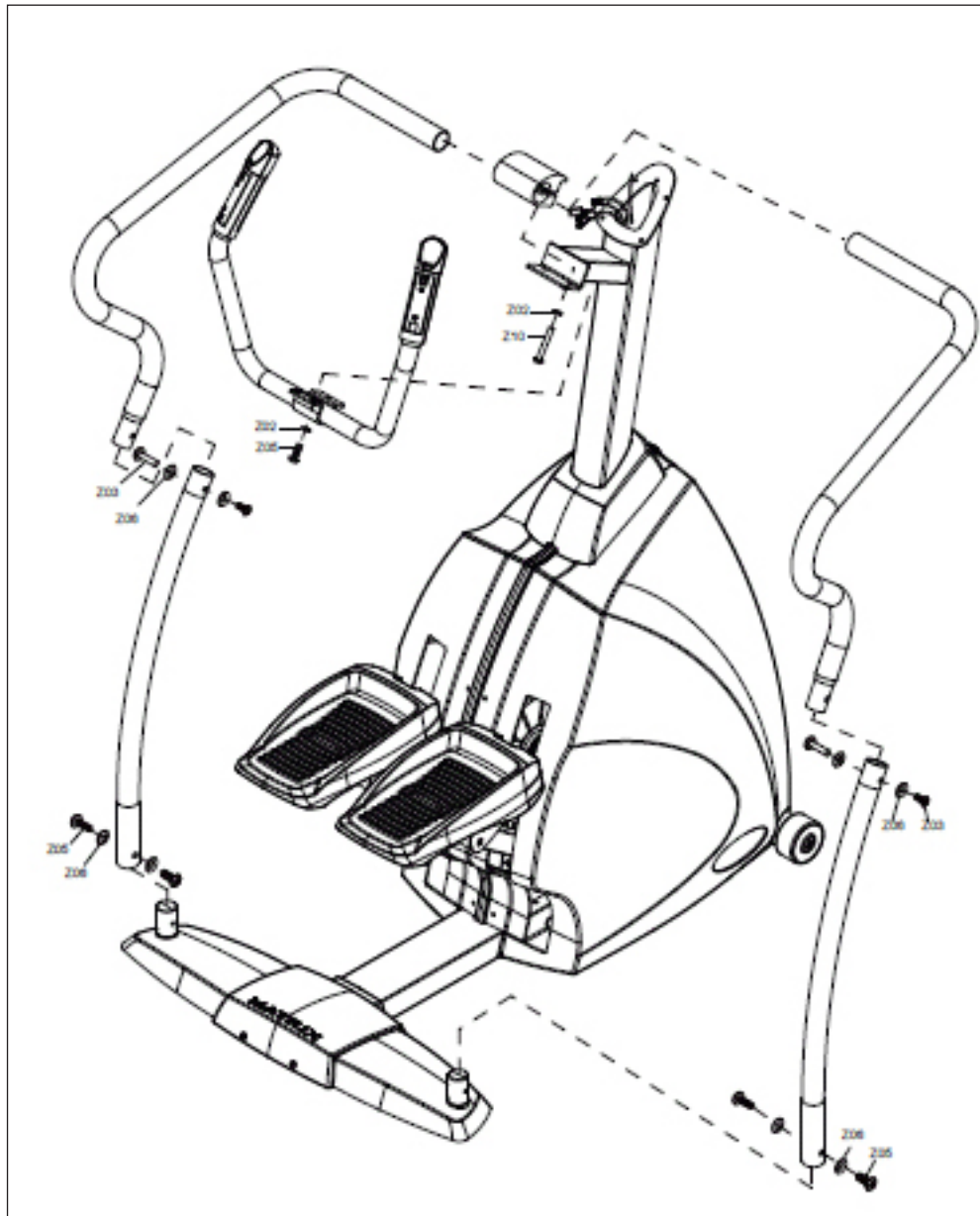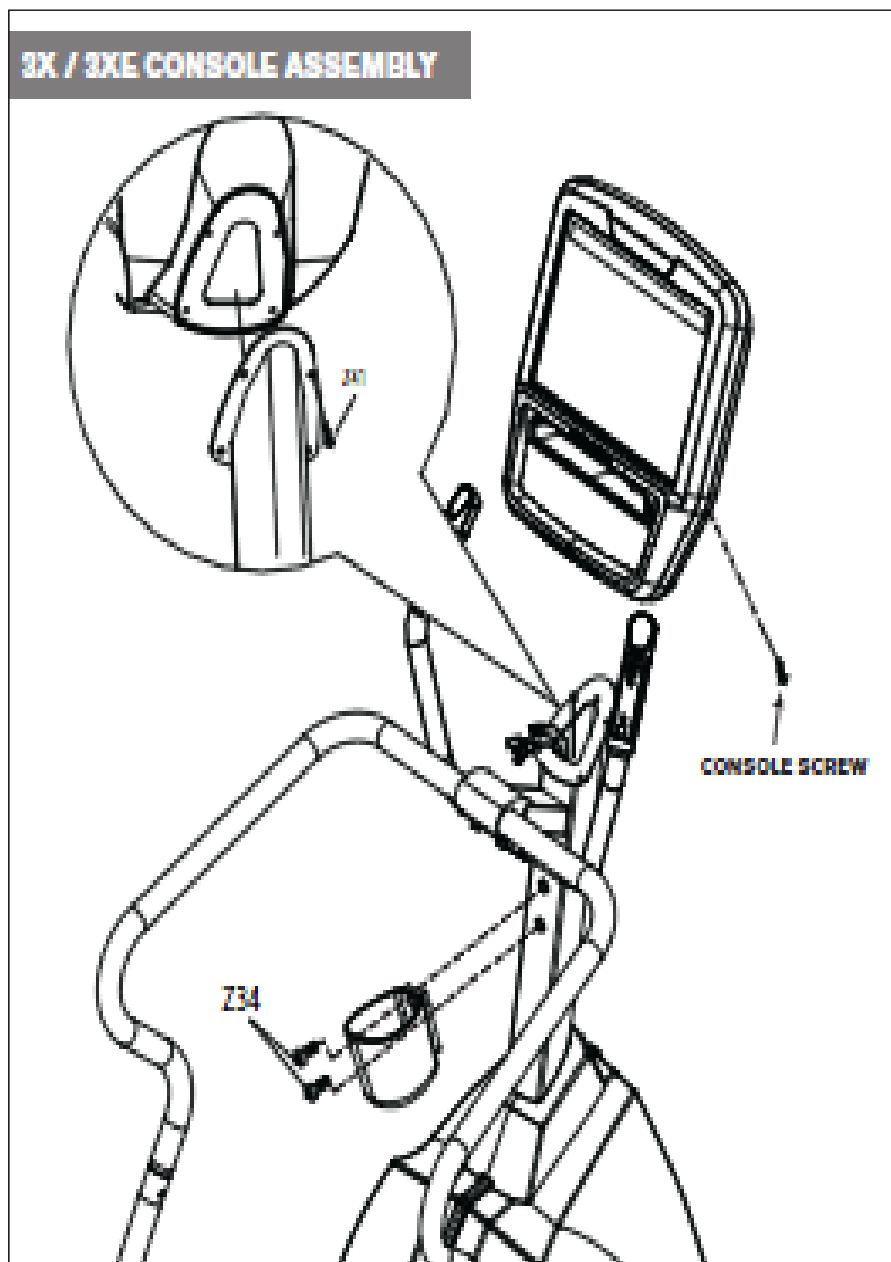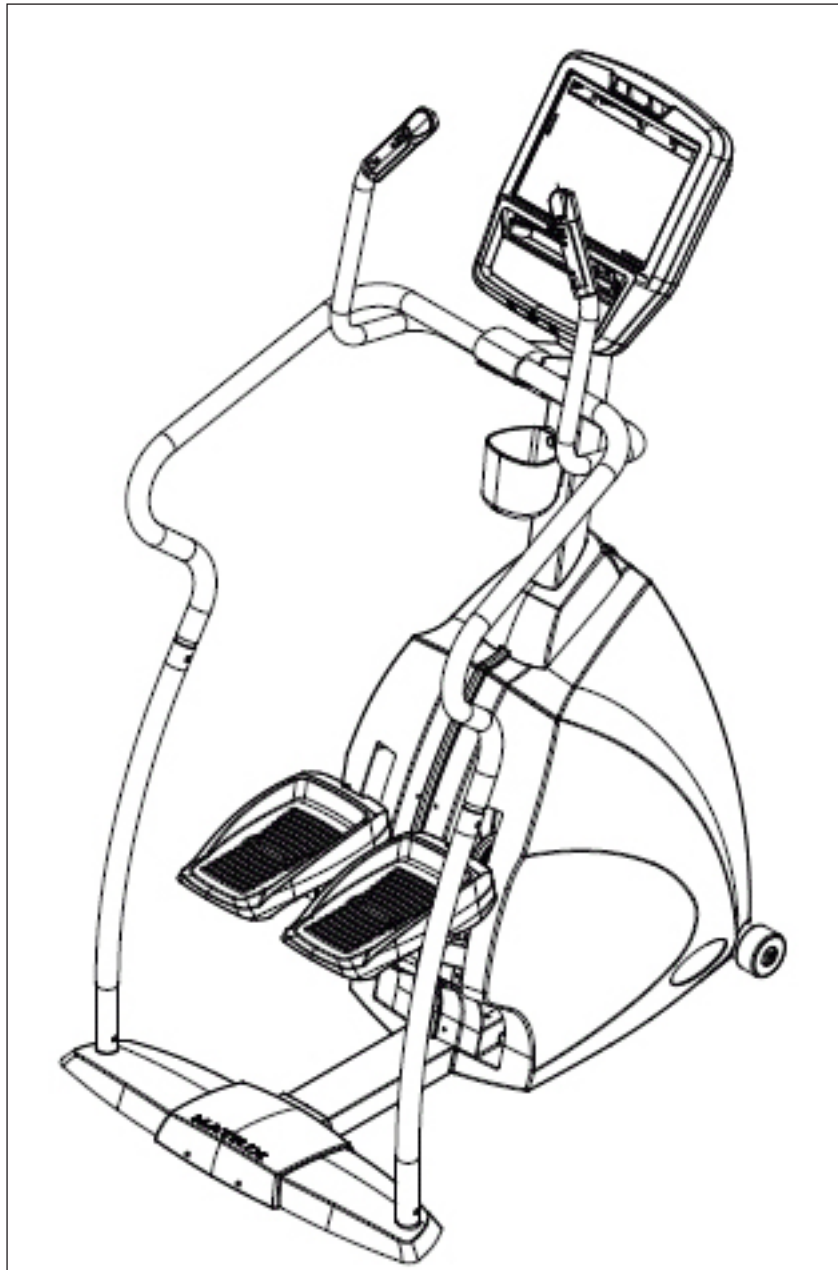
STEP 3

10.3 ASSEMBLY INSTRUCTIONS - CONTINUED

STEP 4

10.3 ASSEMBLY INSTRUCTIONS - CONTINUED

FINAL ASSEMBLY

10.4 LEVELING THE STEPPER

STABILIZING THE MATRIX STEPPER

After positioning the stepper in its intended location, check its stability by attempting to shake it side to side. Shaking or wobbling indicates that your stepper needs to be leveled. Determine which leveler is not resting completely on the floor. Loosen the nut with one hand to allow the leveler to rotate. Rotate the left or right leveler, and repeat the adjustment as necessary until the stepper is stable. Lock the adjustment by tightening the nut against the rear foot support.
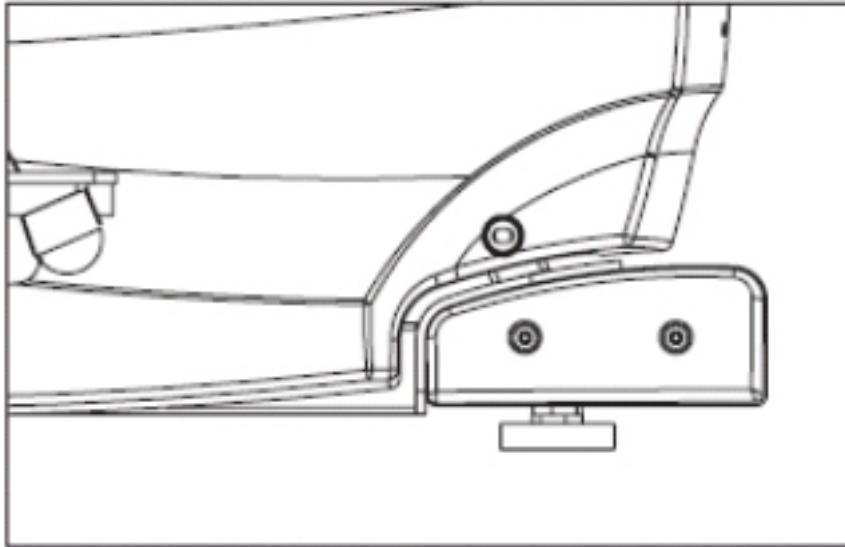
10.5 TV BRACKET INSTALLATION

The Matrix S3xe-01 Stepper is capable of accepting a 15" TV via a bracket. Follow the instructions below to install the TV and bracket. Use the instructions in the Entertainment Owner's Manual to program the TV after installation.

1) Turn off power and disconnect the power cord.
2) Remove the console from the stepper.
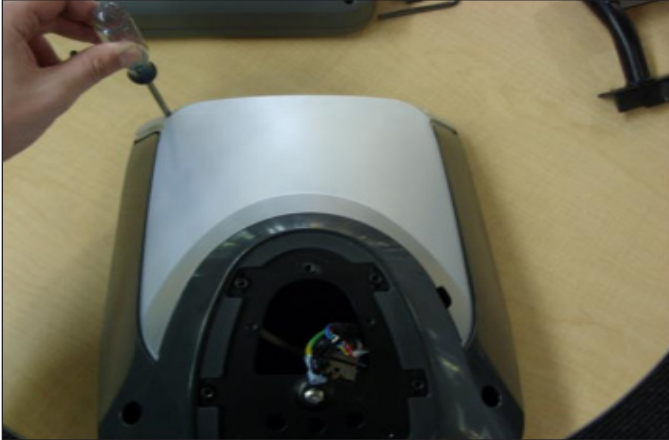3) Remove the 2 screws holding the small silver back cover to the console and remove the back cover (Figures A & B).

FIGURE A

FIGURE B

4) Remove the 4 screws holding the rear half of the console to the front half and split the console (Figures C & D).
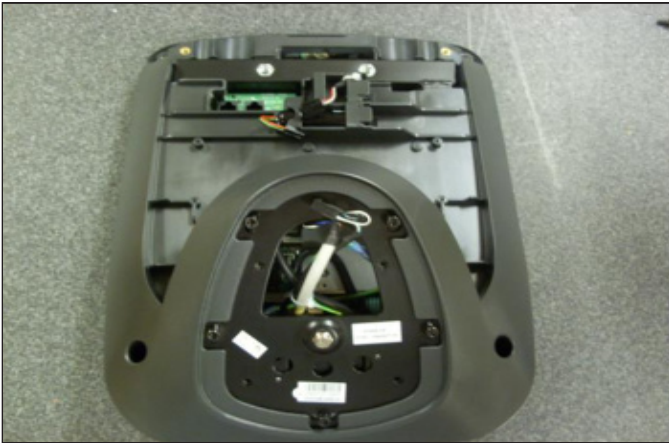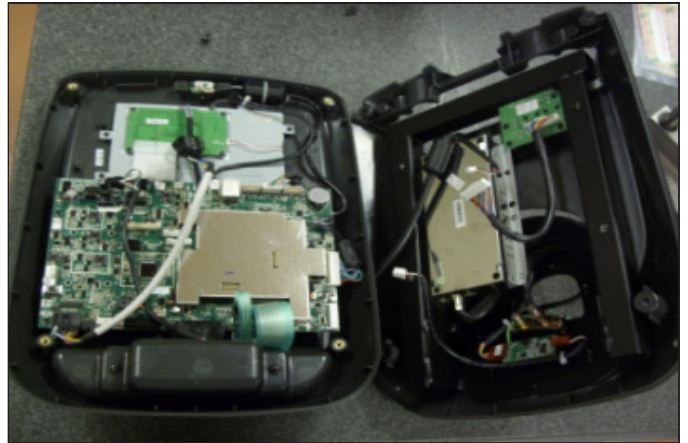

FIGURE C

FIGURE D

5) Plug the TV power wire into the UCB (Figure E).
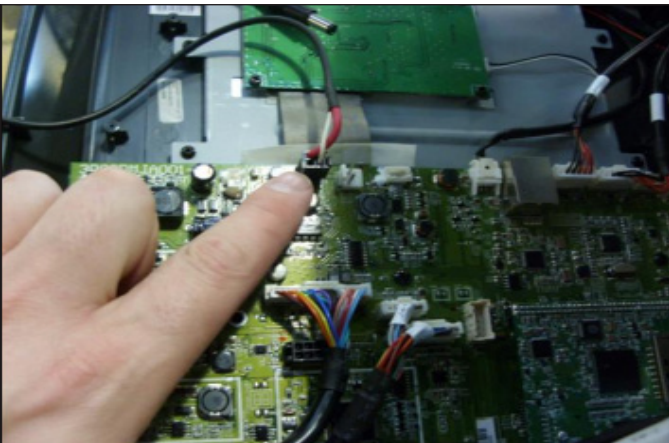6) Plug the TV controller wire into the UCB (Figure F).

FIGURE E

FIGURE F

10.5 TV BRACKET INSTALLATION - CONTINUED

7) Plug the coax cable into the coax adaptor attached to the back half of the console (Figure G).

8) Use the 4 screws removed in Step 4 to re-attach the 2 halves of the console. *NOTE:* Route the TV power, coax, and controller wiring through the hole in top of the console. Also make sure that the console cable wires are protruding so that they are accessible (Figure H).
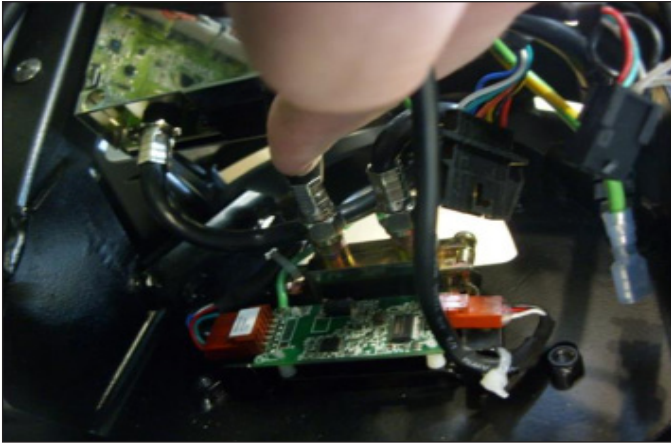
FIGURE G
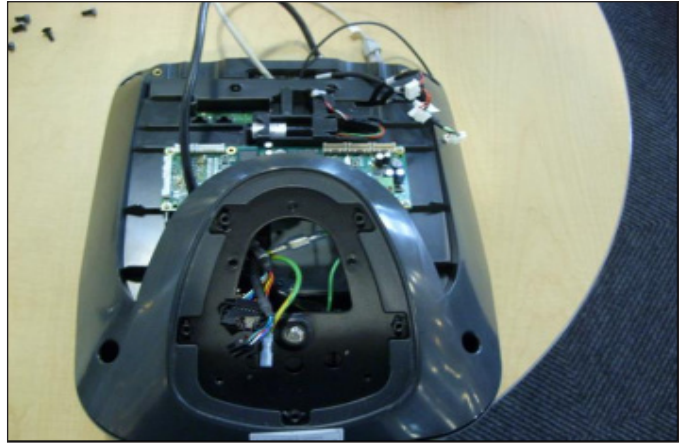
FIGURE H

9) Install the bracket to the console using 4 screws (Figure I).

10) Install the console back onto the console mast and secure it with 5 screws (Figure J). *NOTE:* Make sure to tuck all the wiring into the console or mast to prevent any pinching.

FIGURE I

FIGURE J

11) Install the TV onto the bracket making sure that the tabs on the TV lower plastic shield fit into the slots in back of the console (Figure K), and secure the TV to the bracket with 4 screws (Figure L).

FIGURE K

FIGURE L

10.5 TV BRACKET INSTALLATION - CONTINUED

12) Route the TV power, controller, and console cables out the back of the console and plug into the back of the TV (Figures M & N).
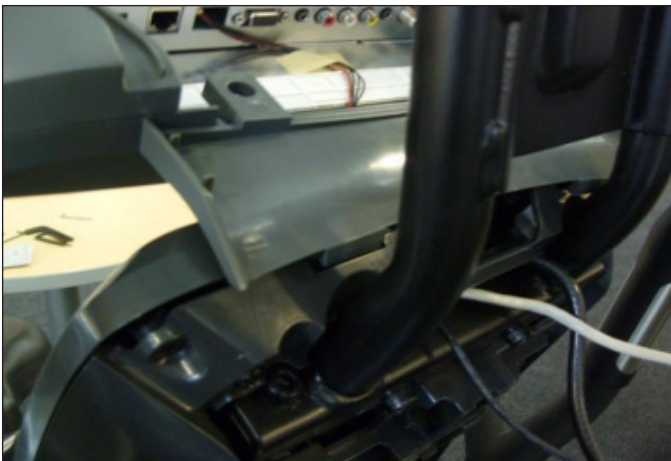13) The new TV should now be programmed and thoroughly tested before installing the covers. See Section 8.9 for TV troubleshooting help if needed.

FIGURE M

FIGURE N

14) Install the console back cover onto the console. ***NOTE:*** You will need to push the top end of the back cover beneath the TV lower plastic cover and route the wiring through the hole in the back cover (Figure O). Once you have the top of the back cover in position, push the lower part of the back cover into position. It should snap into place (Figure P).

FIGURE O

FIGURE P

15) Install the TV back cover onto the unit. ***NOTE:*** You will need to line up the tabs at the bottom of the TV back cover to the slots in the console back cover (Figure Q). Secure the TV back cover with 4 screws (Figure R).

FIGURE Q

FIGURE R

10.6 TV PROGRAMMING INSTRUCTIONS

Once the cardio equipment has been installed, and proper power and cable wiring is provided, The Television must be programmed to the club's channels and settings. *NOTE:* The following instructions are for the integrated TV, use the TV Owner's Manual for external TV programming.

Auto Scan - An auto scan will search for channel signals from the coax cable. It will tune in all channels that provide a signal.
1. Press ENTER, 1, 0, 0, 1, ENTER on the number keypad to enter Manager Mode.
2. Press TV on the display (Figure A).
3. Press SETUP on the display (Figure B). A TV will appear.

FIGURE A

FIGURE B

4. Press the - key on the number keypad and a Menu will appear on the TV (Figure C). *NOTE:* Once the Menu is present on the screen, the following buttons must be pressed quickly, or the Menu will minimize after 5 seconds of no key strokes.
5. Use the VOLUME UP or DOWN keys to move horizontally in the Menu and the CHANNEL UP and DOWN keys to move vertically.
6. Use the VOLUME UP or DOWN keys to scroll the cursor to Channel on the top right of the Menu (Figure D).

FIGURE C

FIGURE D

7. Use the CHANNEL UP or DOWN keys to scroll down to Auto Scan, then press the VOLUME UP or DOWN keys to enter the Channel Scan sub-menu (Figure E).
8.   Use the CHANNEL UP or DOWN keys to scroll to Start To Scan, then press the VOLUME UP or DOWN keys to start the channel scan (Figure F).

FIGURE E

FIGURE F

10.6 TV PROGRAMMING INSTRUCTIONS - CONTINUED

Auto Scan (continued):

9. If the channels are not coming in clearly after a channel scan (or if only some channels come in), follow Steps 4-7 to enter the Auto Scan sub-menu. Use the VOLUME UP or DOWN keys to change the Cable System to match the club's incoming frequency (Figure G), then re-run Auto Scan.

10. If the channels are coming in clearly, press the HOME key to return to normal function (Figure H). If some channels are still not coming in, are blurry, or are not scanning, follow the procedure below for adding / deleting a single channel.   If no channels are coming in, see the troubleshooting in Chapter 2.

FIGURE G

FIGURE H

Adding or Deleting a Single Channel - At times the Channel Scan can pick up channels that do not have a strong enough signal to come in clearly or will fail to pick up channels that do come in clearly. Use the following procedure to manually add or delete a channel.

1. Follow Steps 1-4 in the Auto Scan instructions to access the TV Menu.
2. Use the VOLUME UP or DOWN keys to scroll to Channel on the top right of the Menu.
3. Use the CHANNEL UP or DOWN keys to scroll to Show / Hide (Figure I). Then use the VOLUME UP or DOWN keys to enter the Show / Hide sub-menu.
4. The Show / Hide sub-menu will show a list of channels available (Figure J). Channels with a check mark are scanned in and should show up during normal TV usage.
5. To remove or add any channel, simply scroll to the channel using the CHANNEL UP or DOWN keys, and then press ENTER to add or delete a check mark (which adds or deletes the channel).
6. Once the desired channels are scanned in, press HOME to return to normal operation.

FIGURE I

FIGURE J

10.6 TV PROGRAMMING INSTRUCTIONS - CONTINUED

Closed Caption - Clubs will vary on whether they request the closed caption to be turned off or on. Please discuss this option with the club manager prior to adjusting this setting.

1. Press ENTER, 1, 0, 0, 1, ENTER on the number keypad to enter Manager Mode.
2. Press TV on the display (Figure K).
3. Press SETUP on the display (Figure L). A TV will appear.

FIGURE K

FIGURE L

4. Press the - key on the number keypad and a Menu will appear on the TV (Figure M).
5. Use the VOLUME UP or DOWN keys to scroll the cursor to Setup on the Menu (Figure N).

FIGURE M

FIGURE N

6. Use the CHANNEL UP or DOWN keys to scroll the cursor to Closed Caption, then press the VOLUME UP or DOWN key to enter the Closed Caption sub-menu (Figure O).
7. Use the VOLUME UP or DOWN keys to toggle the CC Mode from ON to OFF or vice versa as needed (Figure P).
8. Press HOME to return to normal function.

FIGURE O

FIGURE P

11.1 SOFTWARE UPGRADE INSTRUCTIONS

* *An AC power cord is required to update software in the field. Plug in the unit prior to beginning the update procedure.*
** *All plug ins must be removed prior to updating software (for example, no IPod can be connected). Do not use the console while an update is in process.*
*** *If VA is installed on the console, wait until the Virtual Active icon on the standard display picture turns red prior to updating the software.*

1) Copy five software files (SirF7xAll.cab, NK, IO_XXX, updateLMM.cofige, and Extract_CE) onto a USB drive.
2) Turn on the power to the stepper, wait until the standby picture has come up (Figure A).
3) Insert the USB drive into the USB Port in the console (Figure B).

FIGURE A

FIGURE B

4) After a few seconds, the stepper will run the auto update processing (Figure C). The achieved percentage of the scheduled process will be displayed (Figure D).
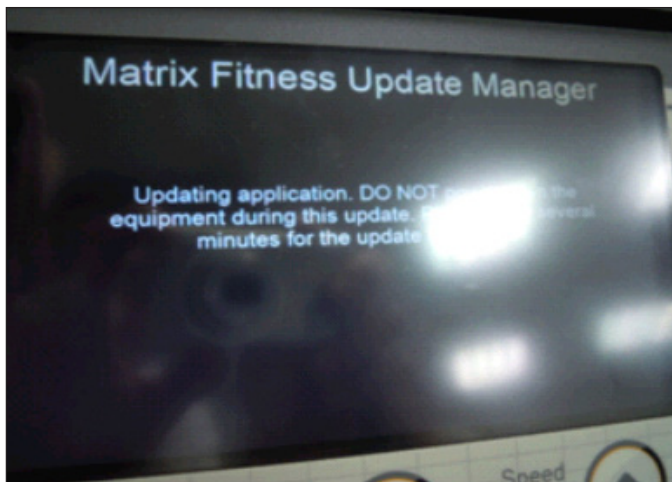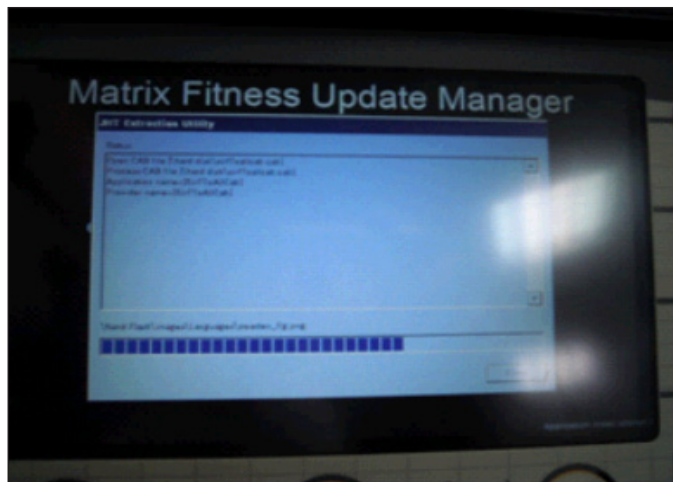

FIGURE C

FIGURE D

11.1 SOFTWARE UPGRADE INSTRUCTIONS - CONTINUED

5) When the update is complete, the display will ask you to remove the USB drive (Figure E). Once the USB is removed, the stepper should reboot immediately. ***NOTE:*** If the console does not reboot normally, reset the unit power using the power switch. Also reset the console power by pressing and holding the CHANNEL UP and DOWN keys together for 3-5 seconds. Update the software again if problems persist.
6) Press ENTER, 1, 0, 0, 1, ENTER on the upper keypad to enter Manager Mode, then press the key next to ABOUT (Figure F).
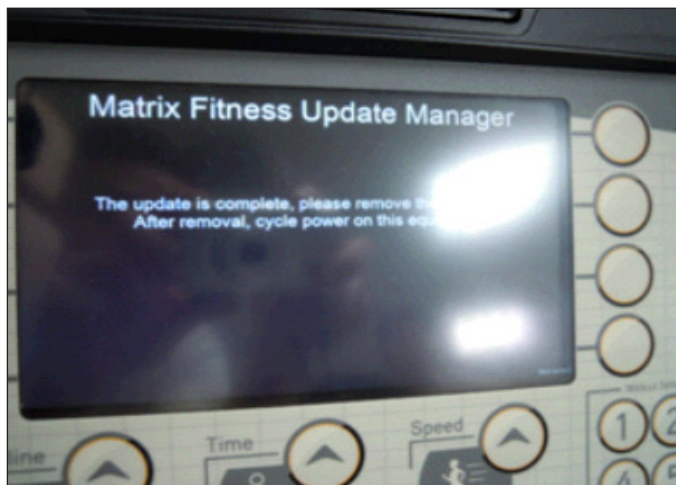

FIGURE E

FIGURE F

7) Press the key next to VERSIONS to verify the new software version (Figure G).
8) All of the software versions will now be displayed (Figure H). Press the HOME key to return to the standard display picture.
9) Press ENTER, 3, 0, 0, 1, ENTER to go into Service Mode. Check to see if the Machine Type is correct. If the Machine Type is not correct, press ENTER, 3, 0, 0, 2, ENTER. This will do a software parameter reset. Then change the Machine Type. Once the Machine Type is changed cycle unit and console power. Press the HOME key to return to the standard display picture if the Machine Type is correct.
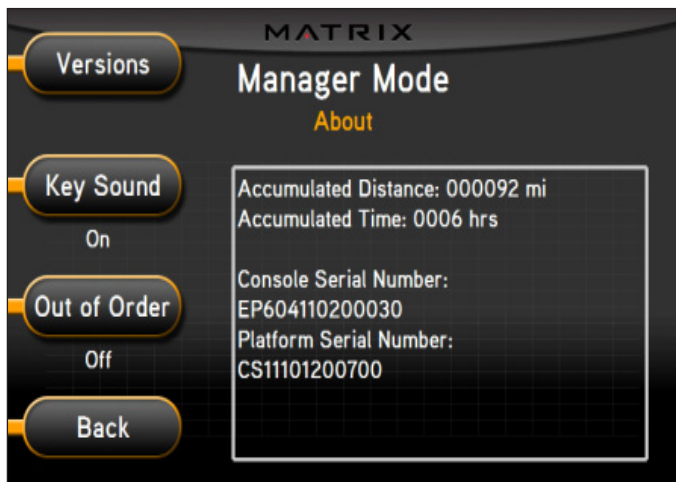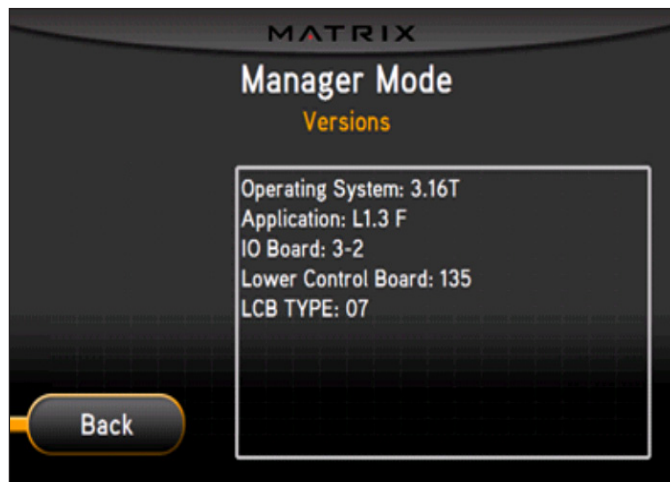

FIGURE G

FIGURE H

NOTES

MATRIX ™

Strong. Smart. Beautiful.